

COLOR MONITOR SERVICE MANUAL

CHASSIS NO. : CL-29

FACTORY MODEL: LN801H

ID LABEL MODEL No: L182ET

**MODEL: RDT181V(BK), NX85LCD
LCD1855NX-BK**

CAUTION

BEFORE SERVICING THE UNIT,
READ THE **SAFETY PRECAUTIONS** IN THIS MANUAL.



CONTENTS

SPECIFICATIONS	2	ADJUSTMENT	12
SERIAL NUMBER INFORMATION	4	INSPECTION.....	17
PRECAUTIONS	5	TROUBLESHOOTING GUIDE	22
TIMING CHART	6	PRINTED CIRCUIT BOARD.....	27
OPERATING INSTRUCTIONS	7	EXPLODED VIEW.....	30
WIRING DIAGRAM	8	REPLACEMENT PARTS LIST	32
BLOCK DIAGRAM	9	PIN CONFIGURATION.....	37
DESCRIPTION OF BLOCK DIAGRAM.....	10	SCHEMATIC DIAGRAM.....	39

SPECIFICATIONS

1. LCD CHARACTERISTICS

Type	: TFT SXGA LCD
Size	: 18inch
Pixel Pitch	: 0.2805(H) x 0.2805(V)
Color Depth	: 8-bit, 16,777,216 colors
Electrical Interface	: LVDS
Surface Treatment	: Anti-Glare, Hard Coating(3H)
Operating Mode	: Normally Black
Backlight Unit	: Six-CCFL (Cold Cathode Fluorescent Lamp)

2. OPTICAL CHARACTERISTICS

2-1. Viewing Angle by Contrast Ratio ≥ 10

Left	: -60° min., -80°(Typ)
Right	: +60° min., +80°(Typ)
Top	: +60° min., +80°(Typ)
Bottom	: -60° min., -80°(Typ)

2-2. Luminance : 200(min), 250(Typ)

2-3. Contrast Ratio : 200(min), 350(Typ)

3. SIGNAL (Refer to the Timing Chart)

3-1. Sync Signal

• Type	: Separate, Positive/Negative Composite, SOG (Sync On Green) Digital
--------	--

3-2. Video Input Signal

1) Type	: R, G, B Analog
2) Voltage Level	: 0~0.71 V
a) Color 0, 0	: 0 Vp-p
b) Color 7, 0	: 0.467 Vp-p
c) Color 15, 0	: 0.714 Vp-p
3) Input Impedance	: 75 Ω

3-3. Operating Frequency

Horizontal	: 30 ~ 80kHz
Vertical	: 56 ~ 85Hz(Limited to 75Hz by EDID)

4. POWER SUPPLY

4-1. Power Adaptor(Built-in Power)

Input : AC 100~240V, 50/60Hz, 1.0A

4-2. Power Consumption

MODE	H/V SYNC	VIDEO	POWER CONSUMPTION	LED COLOR
POWER ON (NORMAL)	ON/ON	ACTIVE	less than 53 W	GREEN
STAND-BY	OFF/ON	OFF	less than 3 W	AMBER
SUSPEND	ON/OFF	OFF	less than 3 W	AMBER
DPMS OFF	OFF/OFF	OFF	less than 3 W	AMBER
POWER S/W OFF	-	-	less than 2 W	OFF

5. ENVIRONMENT

5-1. Operating Temperature: 5°C~35°C (41°F~95°F)
(Ambient)

5-2. Relative Humidity : 10%~80%
(Non-condensing)

5-3. MTBF : 50,000 Hours(Min)

6. DIMENSIONS (with TILT/SWIVEL)

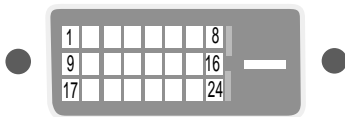
Width	: 406 mm (15.98")
Depth	: 215 mm (8.46")
Height	: 427 mm (16.81")

7. WEIGHT (with TILT/SWIVEL)

Net. Weight	: 8.2kg (18.08 lbs)
Gross Weight	: 11kg (24.25 lbs)

Signal Connector Pin Assignment

• DVI-D Connector (Digital)



Pin	Signal (DVI-D)
1	T. M. D. S. Data2-
2	T. M. D. S. Data2+
3	T. M. D. S. Data2/4 Shield
4	T. M. D. S. Data4-
5	T. M. D. S. Data4+
6	DDC Clock
7	DDC Data
8	NOT USED
9	T. M. D. S. Data1-
10	T. M. D. S. Data1+
11	T. M. D. S. Data1/3 Shield
12	T. M. D. S. Data3-
13	T. M. D. S. Data3+
14	+5V Power
15	Ground (return for +5V, H. Sync. and V. Sync.)

Pin	Signal (DVI-D)
16	Hot Plug Detect
17	T. M. D. S. Data0-
18	T. M. D. S. Data0+
19	T. M. D. S. Data0/5 Shield
20	T. M. D. S. Data5-
21	T. M. D. S. Data5+
22	T. M. D. S. Clock Shield
23	T. M. D. S. Clock+
24	T. M. D. S. Clock-

T. M. D. S. (Transition Minimized Differential Signaling)

SERIAL NUMBER INFORMATION



MITSUBISHI
三菱液晶ディスプレイ
RDT181V (BK)

定格電圧	AC100-240V 50/60Hz
定格電流	1.0A
消費電力	53W

製造番号 **206100001**
NEC三菱電機ビジュアルシステムズ株式会社

警告

高圧注意
サービスマン以外の方は分解しないでください。内部には高電圧部分がありますので、万一さわると危険です。

感電注意
電源コードのアースリード線は必ず接地ください。故障のときに感電の原因となります。

LISTED 59B9
ITE
E82982
Factory ID:GG

(Model: L182ET)

3850TIZ614B MADE IN KOREA

Overprinting

Overprinting

◆ 製造番号 : Y MM C SSSSS

(1) (2) (3) (4)

(1) : Year code of Production (Last Number of year)
ex) 2000 → 0, 2001 → 1, 2002 → 2

(2) : Month code of Production


Month	1	2	3	4	5	6	7	8	9	10	11	12
Number	01	02	03	04	05	06	07	08	09	10	11	12

(3) : Classification code
ex) RDT181V(BK) Model → 1

(4) : Serial Number : This Serial number doesn't reset at each month.
ex) 00001~01234, 01235~99999, 00001~00010.....

PRECAUTION

WARNING FOR THE SAFETY-RELATED COMPONENT.

- There are some special components used in LCD monitor that are important for safety. ***These parts are marked  on the schematic diagram and the replacement parts list.*** It is essential that these critical parts should be replaced with the manufacturer's specified parts to prevent electric shock, fire or other hazard.
- Do not modify original design without obtaining written permission from manufacturer or you will void the original parts and labor guarantee.

WARNING

BE CAREFUL ELECTRIC SHOCK !

- If you want to replace with the new backlight (CCFL) or inverter circuit, must disconnect the AC adapter because high voltage appears at inverter circuit about 650Vrms.
- Handle with care wires or connectors of the inverter circuit. If the wires are pressed cause short and may burn or take fire.

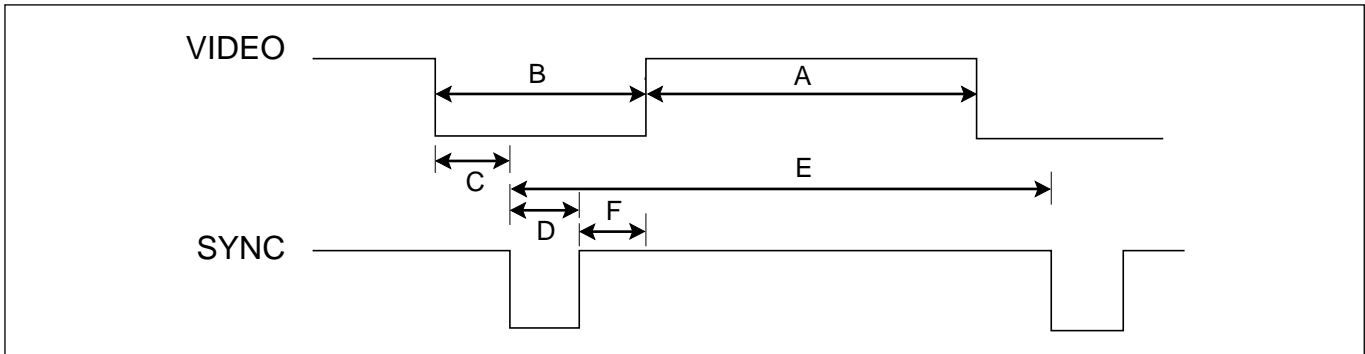
TAKE CARE DURING HANDLING THE LCD MODULE WITH BACKLIGHT UNIT.

- Must mount the module using mounting holes arranged in four corners.
- Do not press on the panel, edge of the frame strongly or electric shock as this will result in damage to the screen.
- Do not scratch or press on the panel with any sharp objects, such as pencil or pen as this may result in damage to the panel.
- Protect the module from the ESD as it may damage the electronic circuit (C-MOS).
- Make certain that treatment person's body are grounded through wrist band.
- Do not leave the module in high temperature and in areas of high humidity for a long time.
- The module not be exposed to the direct sunlight.
- Avoid contact with water as it may a short circuit within the module.
- If the surface of panel become dirty, please wipe it off with a softmaterial. (Cleaning with a dirty or rough cloth may damage the panel.)

CAUTION

Please use only a plastic screwdriver to protect yourself from shock hazard during service operation.

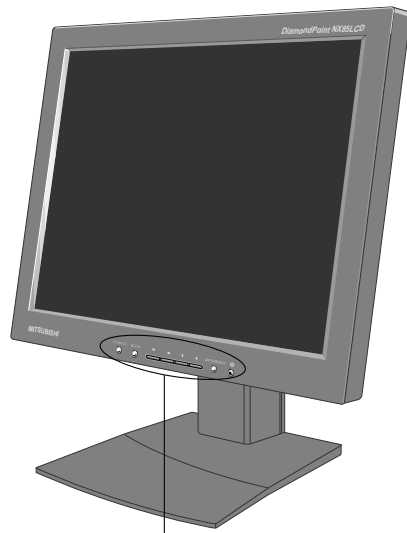
TIMING CHART



<< Dot Clock (MHz), Horizontal Frequency (kHz), Vertical Frequency (Hz), Horizontal etc... (μs), Vertical etc... (ms) >>

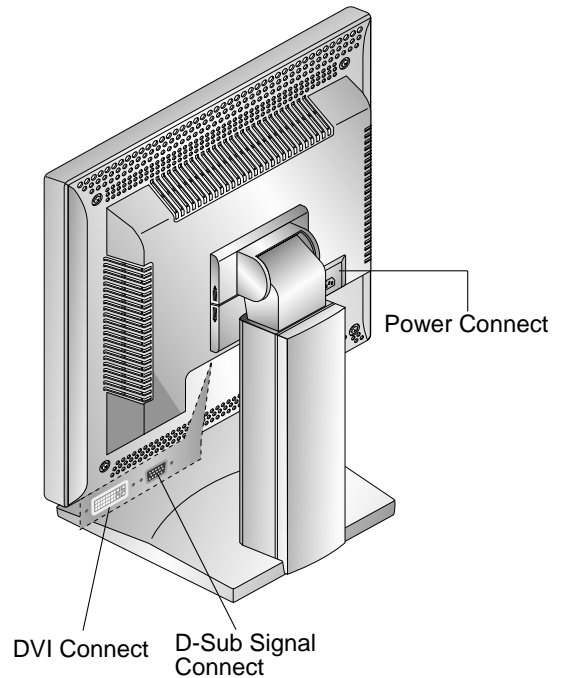
Mode	H/V Sort	Sync Polarity	Dot Clock	Frequency	Total Period (E)	Video Active Time (A)	Back Porch (F)	Sync Duration (D)	Front Portch (C)	Resolution
1	H	+	28.324	31.469	900	720	54	108	18	720x350 70Hz
	V	-		70.082	449	350	60	2	37	
2	H	-	28.324	31.469	900	720	54	108	18	720x400 70Hz
	V	+		70.082	449	400	35	2	12	
3	H	-	25.175	31.469	800	640	48	96	16	640x480 60Hz
	V	-		59.940	525	480	33	2	10	
4	H	-	30.240	35.000	864	640	96	64	64	640x480 66Hz
	V	-		66.670	525	480	39	3	3	
5	H	-	31.500	37.861	832	640	128	40	24	640x480 73Hz
	V	-		72.809	520	480	28	3	9	
6	H	-	31.500	37.500	840	640	120	64	16	640x480 75Hz
	V	-		75.000	500	480	16	3	1	
7	H	+	36.000	35.156	1024	800	128	72	24	800x600 56Hz
	V	+		56.250	625	600	22	2	1	
8	H	+	40.000	37.879	1056	800	88	128	40	800x600 60Hz
	V	+		60.317	628	600	23	4	1	
9	H	+	50.000	48.077	1040	800	64	120	56	800x600 72Hz
	V	+		72.188	666	600	23	6	37	
10	H	+	49.500	46.875	1056	800	160	80	16	800x600 75Hz
	V	+		75.000	625	600	21	3	1	
11	H	-	57.283	49.725	1152	832	224	64	32	832x624 75Hz
	V	-		74.550	667	624	39	3	1	
12	H	-	65.0	48.363	1344	1024	160	136	24	1024x768 60Hz
	V	-		60.004	806	768	29	6	3	
13	H	-	75.000	56.476	1328	1024	144	136	24	1024x768 70Hz
	V	-		70.069	806	768	29	6	3	
14	H	+	78.750	60.023	1312	1024	176	96	16	1024x768 75Hz
	V	+		75.029	800	768	28	3	1	
15	H	+	108.000	63.981	1688	1280	248	112	48	1280x1024 60Hz
	V	+		60.020	1066	1024	38	3	1	
16	H	+	135.000	79.976	1688	1280	248	144	16	1280x1024 75Hz
	V	+		75.025	1066	1024	38	3	1	

FRONT VIEW

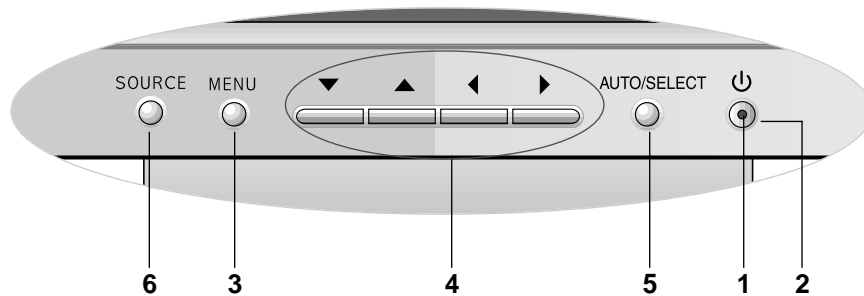


Front Control Panel

REAR VIEW



Front Control Panel



1. Power ON/OFF Button

Use this button to turn the monitor on or off.

2. Power Indicator

This indicator lights up green when the monitor operates normally. If the display is in DPM(Energy Saving)mode, this indicator color change to amber.

3. MENU Button

Use these buttons to enter or exit the On Screen Display.

4. Button

Use these buttons to choose or adjust items in the On Screen Display.

5. AUTO/SELECT Button

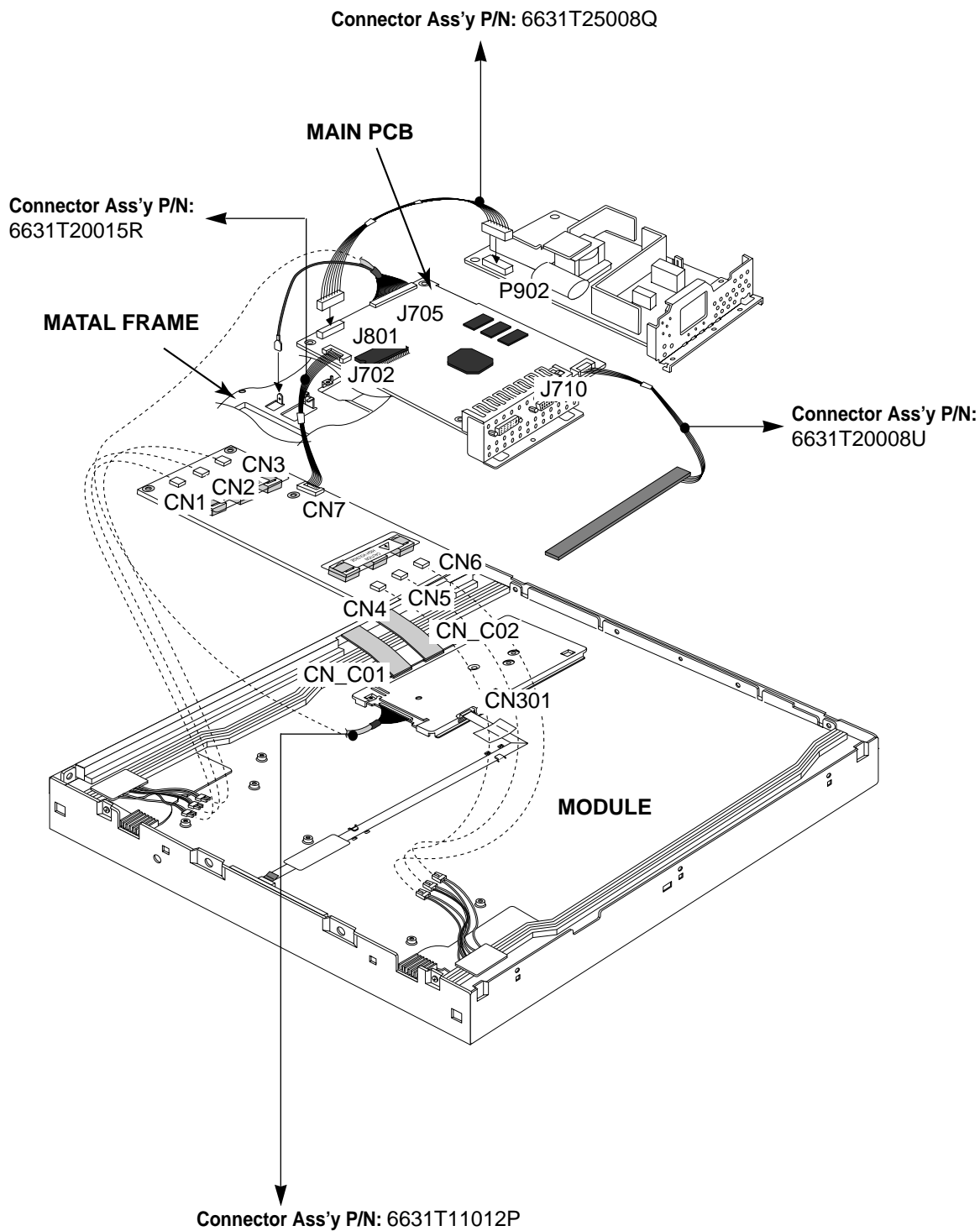
Automatically adjust vertical position, horizontal position, pixel clock and phase.

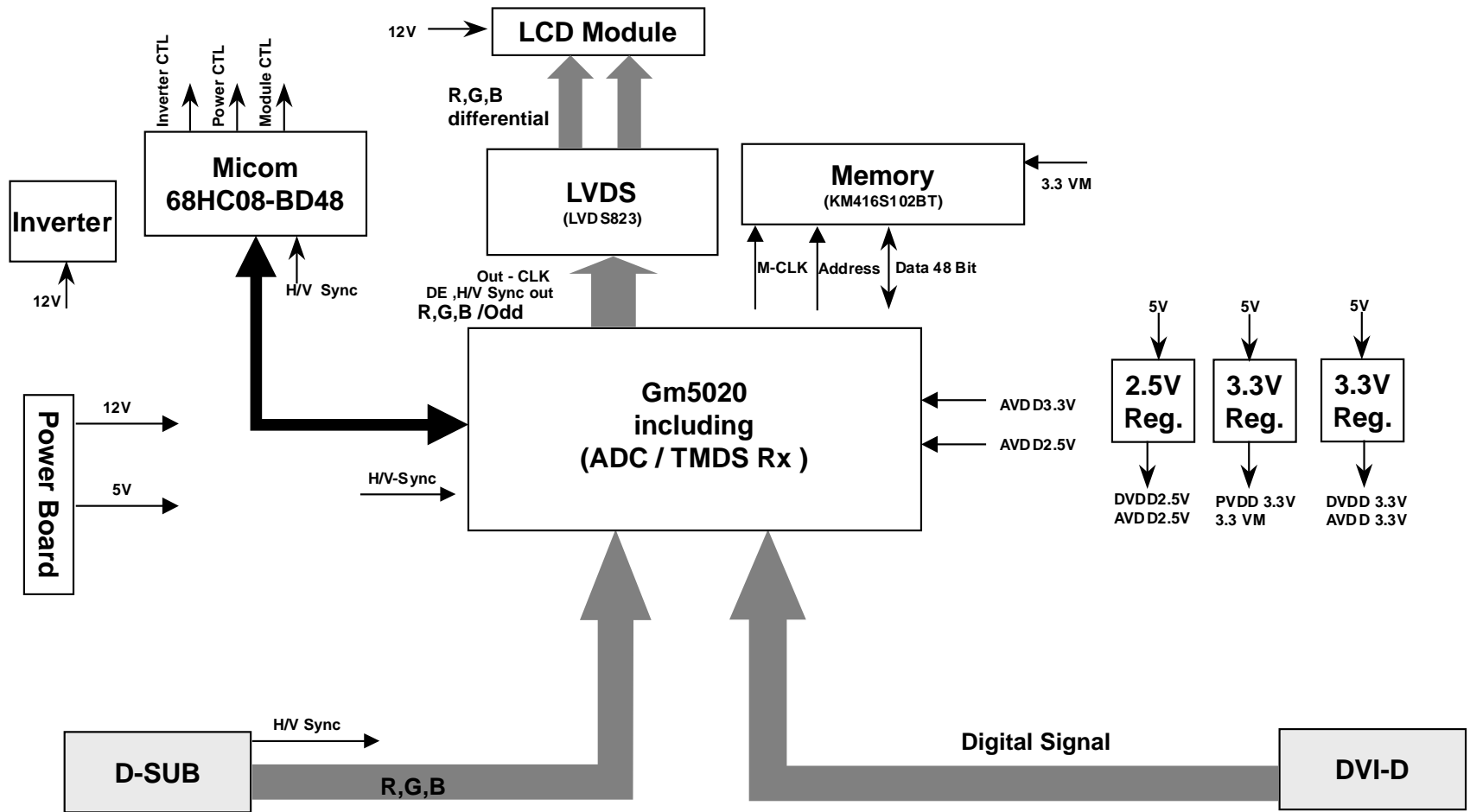
Use this button to enter a selection in the On Screen Display.

6. SOURCE Button

Use this button to make Dsub or DVI connector active.

This feature is used when two computers are connected to the monitor. The default setting is Dsub.





DESCRIPTION OF BLOCK DIAGRAM

1. Video Controller Part(GM5020).

This part amplifies the level of video signal for the analog to digital conversion and converts from the analog video signal to the digital video signal using a pixelclock.

The pixel clock for each mode is generated by the PLL.

The range of the pixel clock is from 25MHz to 135MHz.

This part consists of the Scaler and frame buffers which converts frame rate of input signal to 60Hz frame rate.

The Scaler gets the video signal converted analog to digital, interpolates input to 1280 X 1024 resolution signal and outputs 8-bit R, G, B signal to transmitter.

Especially pre-amp / ADC / Video controller are merged to one chip 'Gm5020' by Genesis.

Also FRC is separate.

2. Display Data Transmitter Part(LVDS).

This part transmit digital signal from the Scaler to the receiver of module.

3. Power Part.

This part consists of the one 5V, two 3.3V and one 2.5 regulators to convert power which is provided 12V, 5V in Power Board.

12V is provided for inverter and LCD Panel, 5V is provided for Micom.

Also, 5V is converted 3.3V and 2.5V by regulator. Converted power is provided for IC in the main board.

4. MICOM Part.

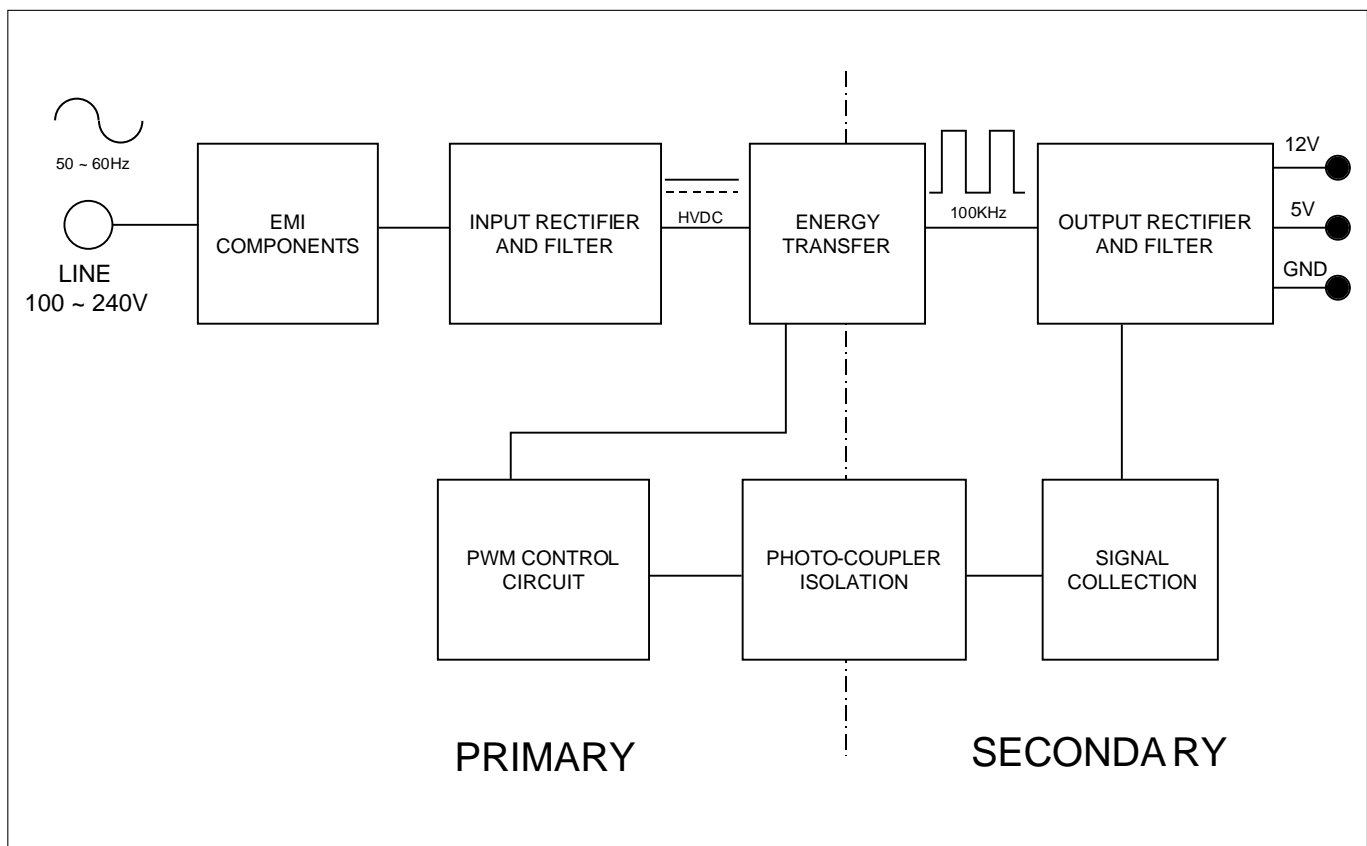
This part consists of EEPROM IC which stores control data, Reset IC and the Micom.

The Micom distinguishes polarity and frequency of the H/V sync are supplied from signal cable.

The controlled data of each modes is stored in EEPROM.

5. Inverter

The inverter converts from DC12V to AC 600Vrms and operate back-light lamp of module.



Operation description_Power

1. EMI components.

This part contains of EMI components to comply with global marketing EMI standards like FCC, VCCI CISPR, the circuit included a line-filter, across line capacitor and of course the primary protection fuse.

2. Input rectifier and filter.

This part function is for transfer the input AC voltage to a DC voltage through a bridge rectifier and a bulk capacitor.

3. Energy Transfer.

This part function is transfer the primary energy to secondary through a power transformer.

4. PWM control circuit.

This part function is to make a pulse width modulation control and to provide the driver signal to power switch, to adjust the duty cycle during different AC input and output loading condition to achieve the dc output stabilize, and also the over power protection is also monitor by this part.

5. Photo-Coupler isolation.

This part function is to feed back the dc output changing status through a photo transistor to primary controller to achieve the stabilized dc output voltage.

6. Signal collection.

This part function is to collect the any change from the dc output and feed back to the primary through photo transistor.

7. Output rectifier and filter.

This part function is to achieve the dc output voltage stabilize.

ADJUSTMENT

1. Application

This specification shall be applied to the adjustment and inspection of the LN801H.

2. Adjustment Setup

All adjustment are thoroughly checked and corrected when the monitor leaves the factory, but sometimes several minor adjustment may be required.

Adjustment should be following procedure and after more than 30 minutes.

Unless otherwise specified, adjustment shall be carried out under the following conditions.

- Input Power: 100~240V /50~60Hz
- Input Signal: 1280 X1024 @ 60Hz default
- Aging Time: More than 30 Minutes
- Aging Temperature: 10~35 degrees
- Adjustment equipment and equipment connection setup.

Refer to figure 1.

VG819 or equivalent,

1) IBM compatible PC

2) Adjustment program for LN801H.

3) Adapter Box

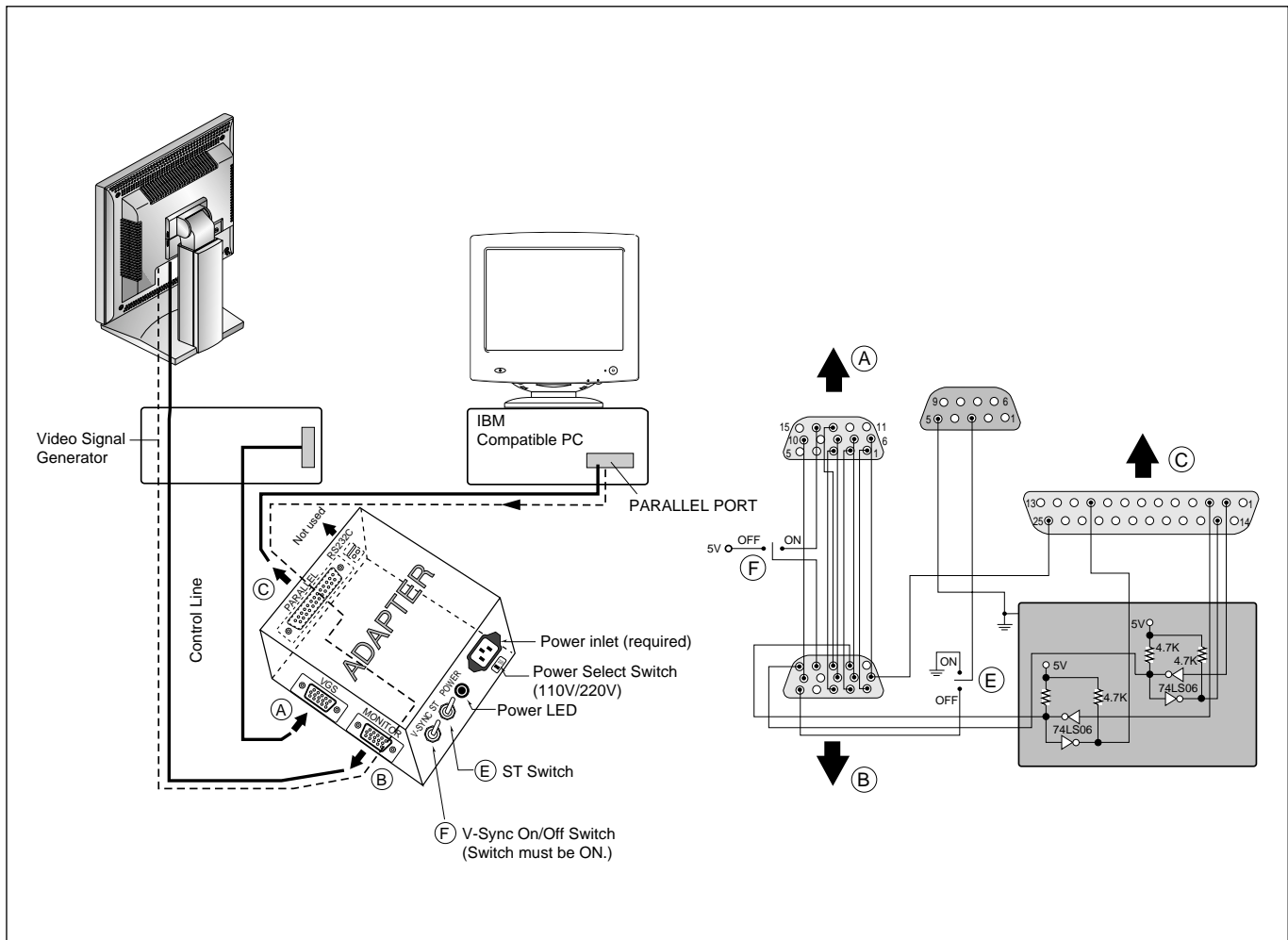


Figure 1. Cable Connection

3. Adjustment

3-1. Initialization and Aging

Prior to adjustment of this model, more than 30 minutes of aging shall be carried out.

- 1) Display any pattern at any Mode.
- 2) Run adjustment program for LN801H on the IBM compatible PC.



- 3) Select EEPROM ALL INIT command and Enter.



- 4) This will make all data to default state and make aging mode.
- 5) Remove signal cable from the monitor.

3-2. Adjustment of Factory Preset Mode.

- 1) It's not necessary for preset mode adjustment.

All preset mode data shall be written to EEPROM at initial power on.

- 2) **IMPORTANT**

At the initial Power turn on, maintain power on status more than 3 seconds.

3-3. Adjustment for White Balance

- 1) Display (Full black pattern) at SXGA 60Hz.
- 2) Set External Bright to MAX position and Contrast to 80 Position.
- 3) Select COLOR ADJ BIAS CAL command and Enter.



- 4) No attempt to manually adjust, BIAS data is automatically adjusted and saved to the EEPROM.
If the message of "AUTO OK OK" is displayed at front of screen,
The adjustment is succeeded.
If the message of "AUTO ERROR" is displayed at front of screen, because the adjustment is failed, do adjust again.
- 5) Display (Full white pattern) at SXGA 60Hz.
- 6) Select DRIVE CAL command and Enter.



- 7) 6500K and 9300k are automatically adjusted and saved to the EEPROM.
If the message of "AUTO OK OK" is displayed at front of screen,
The adjustment is succeeded.
If the message of "AUTO ERROR" is displayed at front of screen, because the adjustment is failed. So do adjust again.

8) Select PRESET EXIT command and Enter.



3-4. Adjustment for EDID

Use this procedure only when there is some problem on EDID data.

- 1) Connect the D-sub cable.(For Analog EDID)
- 2) Select EEPROM EDID<A> WR command and Enter.



- 3) Connect the DVI to D-sub cable.(For Digital EDID)
- 4) Select EEPROM EDID<D> WR command and Enter.



* How to change the EDID (Serial No. etc.)

1. Operate adjustment Program
 2. Select EDID INFO of the EDID Menu for Analog EDID and DDC INFO for Digital EDID.
 3. First. You can see the blank screen, and press "Enter" key and you can see the EDID Contents
 4. Choose the Data to be changed, and press "Enter" Key.
 5. After changing the Data, Press "Enter"
- If more and more to be changed, go back to 4 and repeat.
6. To save and end the changed, press "F10" Key
- Not to do that, Press "Esc"



The screenshot shows the EDID data table with the title bar "<< LCD IIC ADJUST. PROGRAM :LCD185-1.DAT >>". The table has columns for EDID (0-7) and hexadecimal data (0-F). The data for EDID 0 is 00 FF FF FF FF FF FF 00 34 AC 38 46 01 01 01 01. The data for EDID 1 is 00 0C 01 03 68 24 1D 78 EA 0A 25 A2 57 4B 99 24. The data for EDID 2 is 18 50 54 BF EF 80 81 80 81 40 71 4F 01 01 01 01. The data for EDID 3 is 01 01 01 01 01 01 30 2A 00 98 51 00 2A 40 30 70. The data for EDID 4 is 13 00 67 1F 11 00 00 1E 00 00 00 FD 00 38 4B 1F. The data for EDID 5 is 53 0E 00 0A 20 20 20 20 20 20 00 00 00 FC 00 4E. The data for EDID 6 is 58 38 35 4C 43 44 0A 20 20 20 20 20 00 00 00 FF. The data for EDID 7 is 00 32 30 36 30 30 30 30 30 30 31 0A 20 20 20 56. A callout bubble points to the data for EDID 7, stating: "32 30 36 30 30 30 30 30 31" shows S/No. By changed ASCII Code, S/No equals 20600001.

EDID	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	00	FF	FF	FF	FF	FF	FF	00	34	AC	38	46	01	01	01	01
1	00	0C	01	03	68	24	1D	78	EA	0A	25	A2	57	4B	99	24
2	18	50	54	BF	EF	80	81	80	81	40	71	4F	01	01	01	01
3	01	01	01	01	01	01	30	2A	00	98	51	00	2A	40	30	70
4	13	00	67	1F	11	00	00	1E	00	00	00	FD	00	38	4B	1F
5	53	0E	00	0A	20	20	20	20	20	20	00	00	00	FC	00	4E
6	58	38	35	4C	43	44	0A	20	20	20	20	20	00	00	00	FF
7	00	32	30	36	30	30	30	30	30	31	0A	20	20	20	00	56

- Information of S/No on the EDID-

Find character string "00 00 00 FF 00" on EDID Data.

From next string of the above to "0A" is S/No.

Here, you should take care of this S/No composed by "ASCII Code"

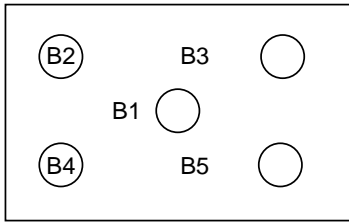
FYI,

30H equals to 0, 31H equals to 1, ... 39H equals to 9.

More information, refer to ASCII Code Table.

INSPECTION

1. PERFORMANCE INSPECTION

NO.	ITEMS	PATTERN	INSPECTION	CRITERIA
2	Luminance	Full White	Check Luminance on 255 grey level	200(min.), 250(typ.) Cd/m2 at the center
3	Luminance Uniformity	Full White	<p>1) Measure luminance at each point (5 point) on brightness/contrast max condition. 2) Calculate I/u with formula.</p>  $\frac{[B \text{ max} - B \text{ min}]}{B \text{ max}} \times 100 \leq A \%$	75 % (max.)
4	White Balance	Full White	<p>1) Measure color coordinate at each color temperature. (6500k & 9300k) 2) Measure color coordinate on R,G,B if required.</p>	<p>6500k, Wx=0.313± 0.03 Wy=0.329± 0.03 9300k, Wx=0.281± 0.03 Wy=0.311 ± 0.03</p>
5	DPM	Full White All Mode	<p>Check wattage and LED color at each mode</p> <p>1) Normal mode (H/ V: on/on) 2) Stand-by mode (H/ V : off/on) 3) Suspend mode (H/ V : on/off) 4) DPM off mode (H/ V : off/off) 5) Power s/w off mode</p>	<p>1) ≤ 53 W, Green 2) ≤ 3 W, Amber 3) ≤ 3 W, Amber 4) ≤ 3 W, Amber 5) ≤ 2 W</p>
6	DDC 2B	All Mode	Display EDID data from memory and Compare with standard EDID format for LN801H.	

2. COSMETIC INSPECTION

1.1 DOT DEFECT

This criteria is based on ISO-13406-2 Pixel Faults Class II

Items			Criteria		Remarks
Adjacent Dots	1)	Bright Dots	Horizontally adjacent 2 dots (R+G, G+B)	Max. 3	Note 1
	2)	Dark Dots		Max. 3	Note 2
	3)	Bright Dots	Horizontally, vertically or combined adjacent 3 dots (separately bright dots and dark dots)	Not Allowed	Note 3
	4)	Dark Dots		Not Allowed	
Dot Defect	5)	Dot defect except 1), 2)	R or G or B (Bright Dot + Dark Dot)	Max. 7	Note 4
Min. Distance between bright dots	6)	Distance between bright dots	Distance between bright dots (R - R): less than 6.5mm	Max. 2 for each color	Note 5
	7)	Distance between 6)'s	Distance between 6)'s : less than 10mm	Not Allowed	Note 6
	8)	Fault cluster	Two or more pixels or sub-pixels with more than one fault of 5)	Max. 3	Note 7
			Two or more pixels or sub-pixels with more than one fault of 1)	Not Allowed	Note 8
			Two or more pixels or sub-pixels with more than one fault of 2)		
Total amount of Dot Defects	Total amount of Bright Dot (R,G,B) and Dark Dot (R,G,B)			Max. 15	-
	Total amount of Bright Dot (G)			Max. 6	-
Note 9. Every dot herein means sub-pixel (each Red, Green or Blue color)					
Note 10. Bright & Dark Dots are larger than one third of sub-pixel. (Dots smaller than one third of sub-pixel are not counted as a defect dots.)					
Note 11. Do not use the [ND] filter in counting a bright dot.					



Note 1. Horizontally adjacent 2 dots (R+G, G+B)

Count as horizontally adjacent 2 dots						
R G	GB	R G	GB			
Do not count as adjacent 2 dots						
R G	R G	R G	R G	R G	R G	etc.
Combination with Bright & Dark Dot		Combination except horizontally adjacent 2 dots.				

Note 2. 1)+ 2) : Max. 3

Note 3. Horizontally, vertically or combined adjacent 3 dots
(separately bright dots and dark dots)

Count as adjacent 3 dots							
Do not count as adjacent 3 dots							

Note 4. Do not count the horizontally adjacent 2 dots (R-G, G-B)

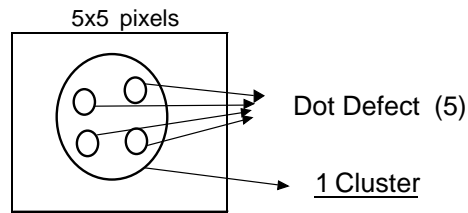
Note 5. Distance between bright dots

Count as defect			Do not count as defect					
Distance between the same color			Combination with Bright Dot & Dark Dot			Combination with the different color		

Note 6. Distance between the group of 6)'s.

Count as defect		

Note 7. Two or more pixels or sub-pixels with more than one fault of 5) within 5x5 pixels



The number of cluster within all screen : Max. 3

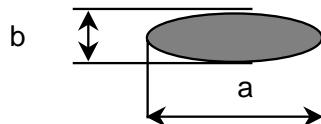
Note 8. Two or more pixels or sub-pixels with more than one fault of 1) or 2) within 5x5 pixels

Count as defect		Do not count as defect
<div>5x5 pixels</div>		<div>5x5 pixels</div>
<div>5x5 pixels</div>	<div>5x5 pixels</div>	

1.2 Polarizer Defects

Items		Criteria
Scratches	Linear	$0.01 \leq W \leq 0.05, 1.0 \leq L \leq 10.0, N \leq 4$
Dent	Circular	$0.2 \leq D \leq 0.5, N \leq 4$

W : Width
L : Length
D : Average diameter



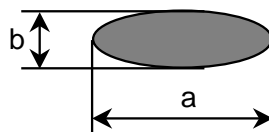
$$D = \frac{a+b}{2}$$

Note

- Average Diameter
- Linear : $a > 2b$, Circular : $a \leq 2b$
- Extraneous substances which can be wiped out, like Finger Print, Particles, are not considered as a defect.
- Defects which is on the Black Matrix(outside of Active Area) are not considered as a defect.

1.3 Foreign Material

Items		Criteria
Foreign Material	Linear	$0.03 \leq W \leq 0.152$, (Bright), $0.03 \leq W \leq 0.10$ (Dark), $0.3 \leq L \leq 3.0$, $N \leq 4$
	Circular	$0.2 \leq D \leq 1.0$ (White/Dark), $0.1 \leq D \leq 1.3$ (Gray), $N \leq 10$



W : Width
L : Length
D : Average diameter

Note

a. Average Diameter

b. Linear : $a > 2b$, Circular : $a \leq 2b$

$$D = \frac{a+b}{2}$$

1.4 Line Defect

All kinds of line defects such as vertical, horizontal or cross are not allowed.

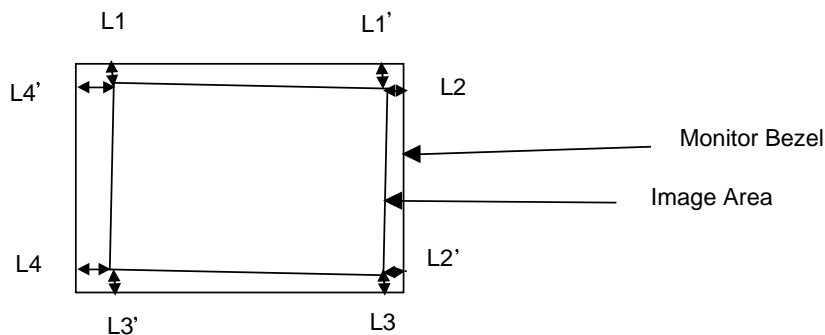
1.5 Bezel Appearance

Scratches, minor bents, stains, particles on the LCD Bezel frame are not considered as a defect.

1.6 Display tilt and Position difference

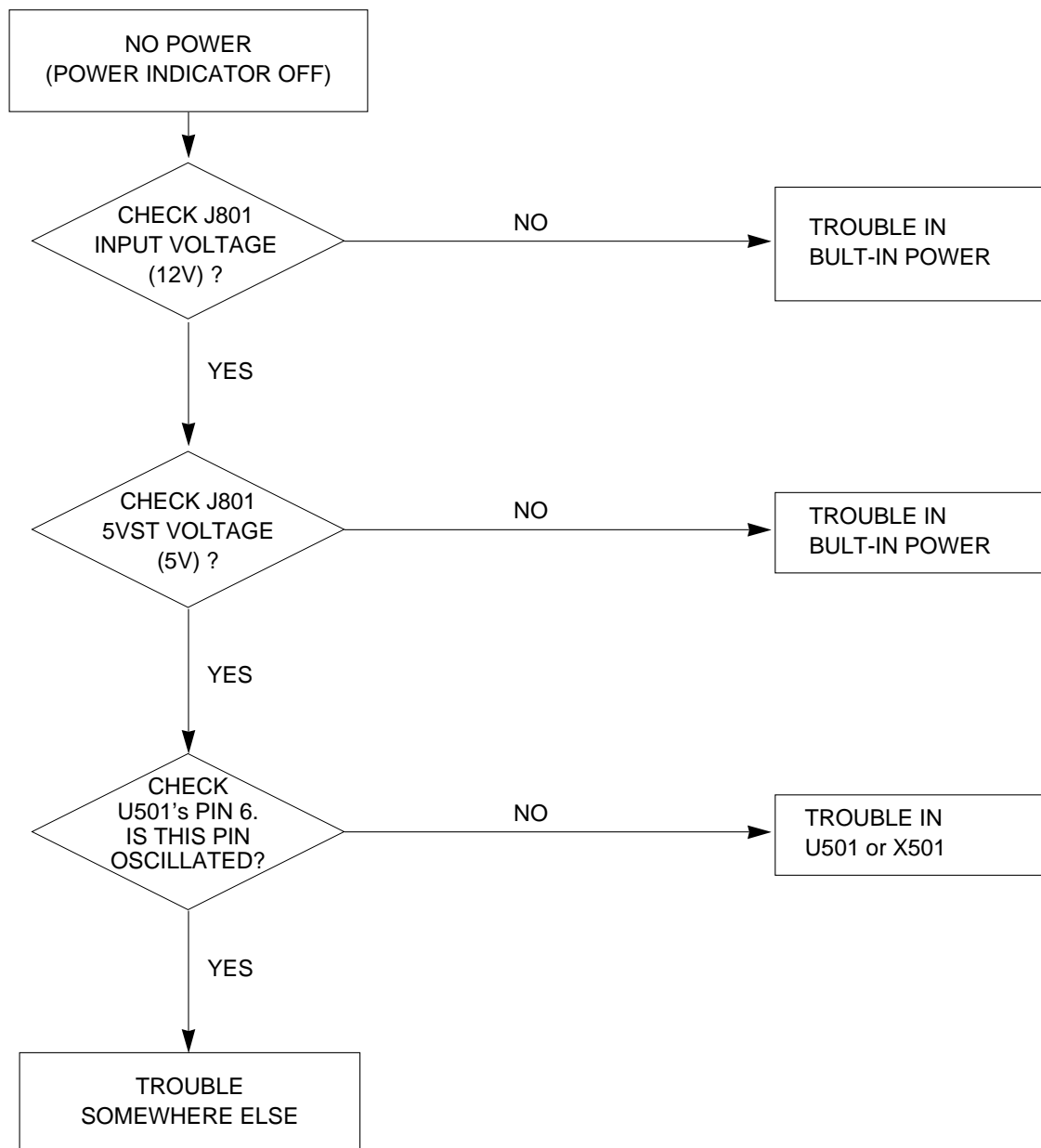
Any part of image must not be missed by the position difference or the display tilt.

$$L1, L1', L2, L2', L3, L3', L4, L4' > 0$$

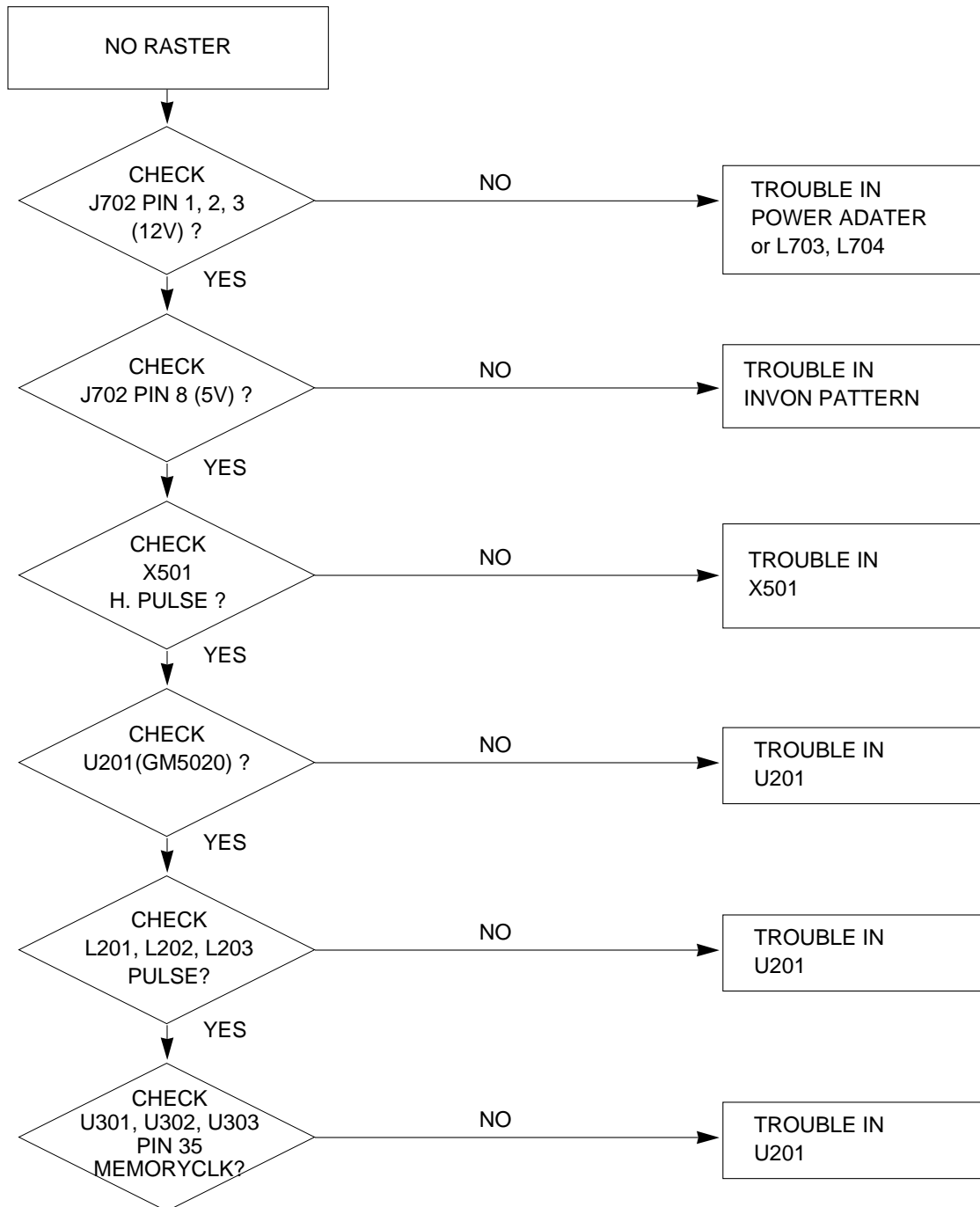


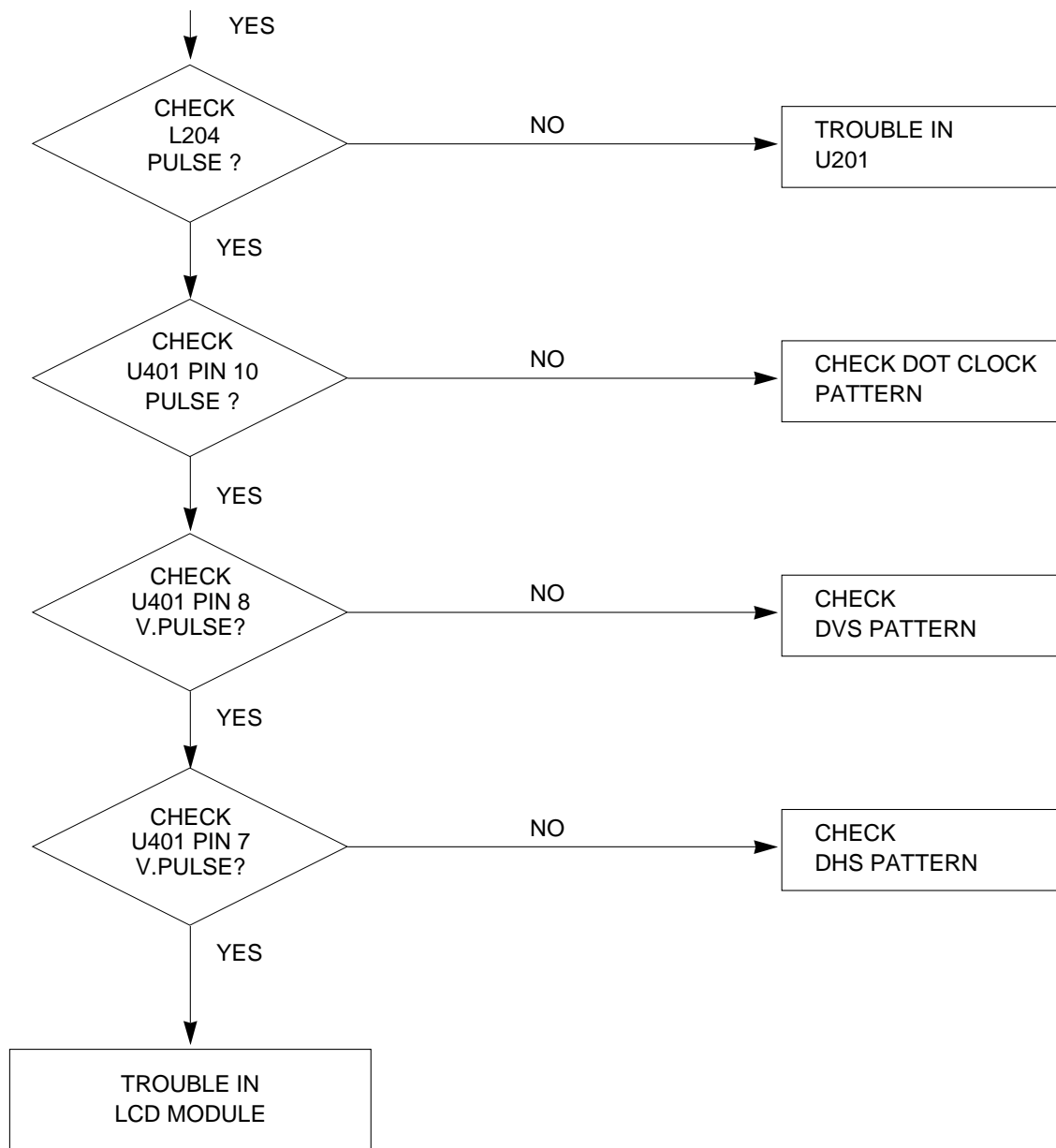
TROUBLESHOOTING GUIDE

1. NO POWER

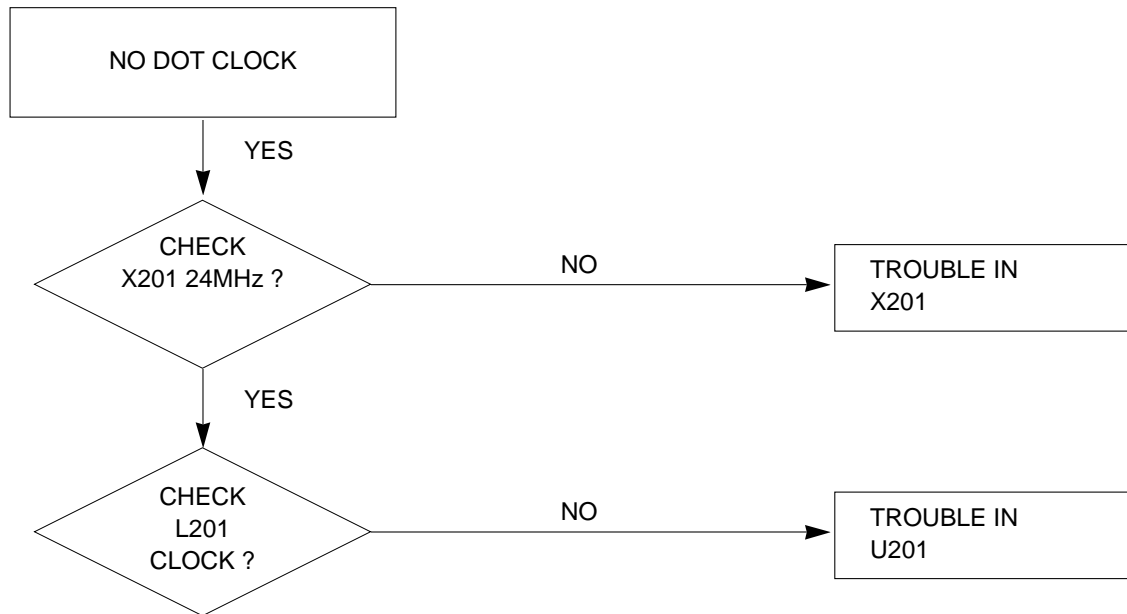


2. NO RASTER

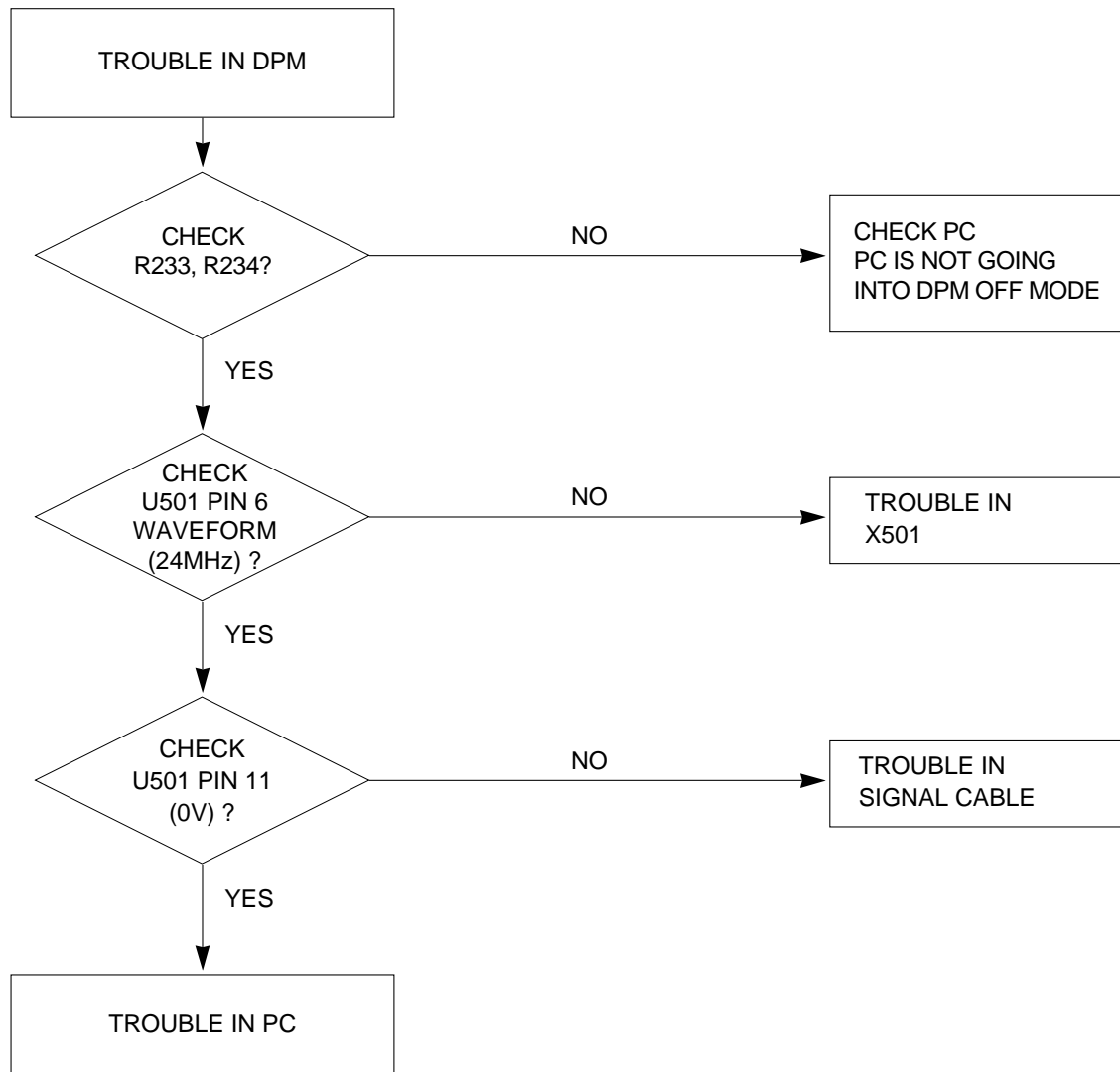




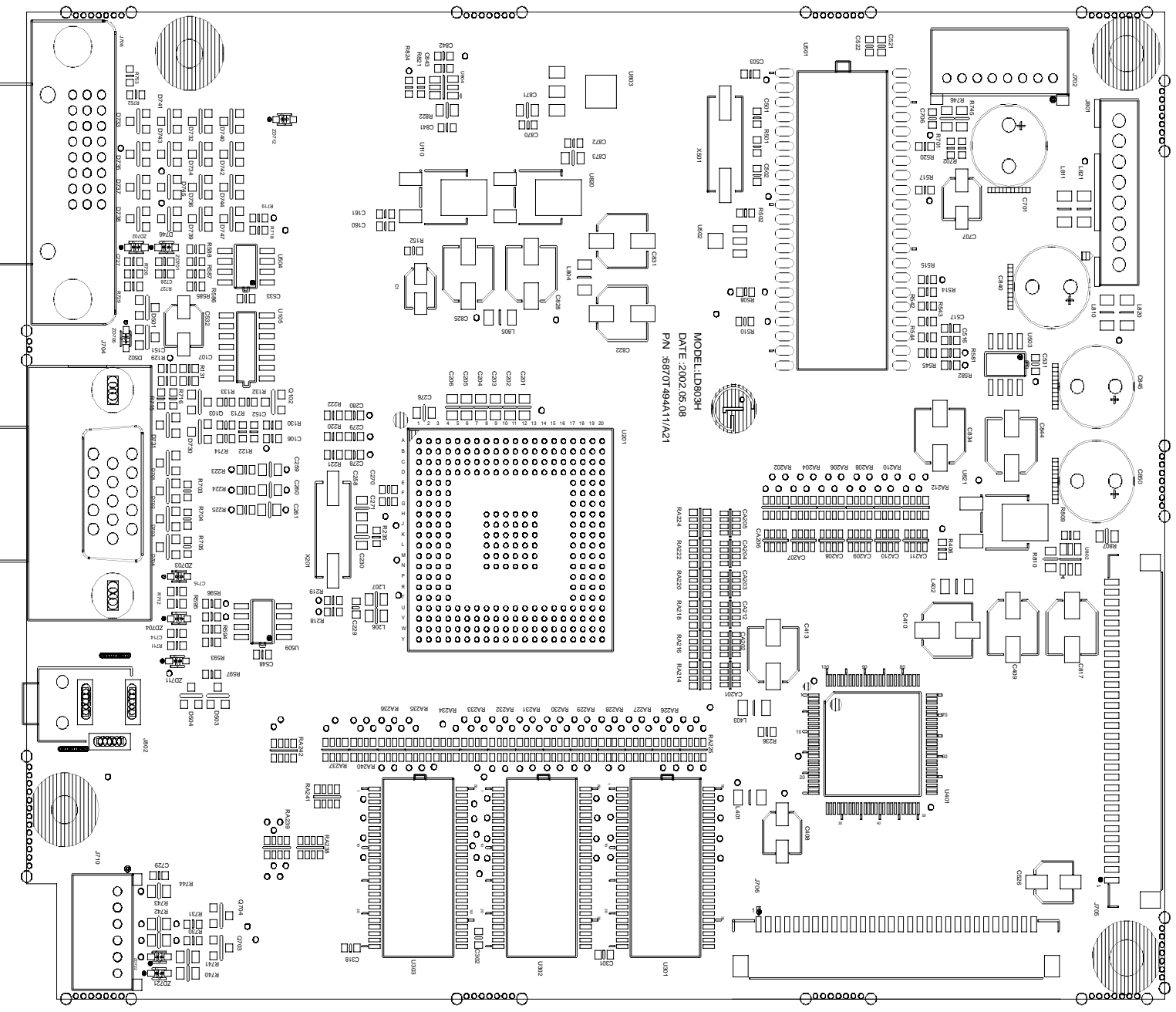
3. NO CLOCK (CLOCK GENERATOR)

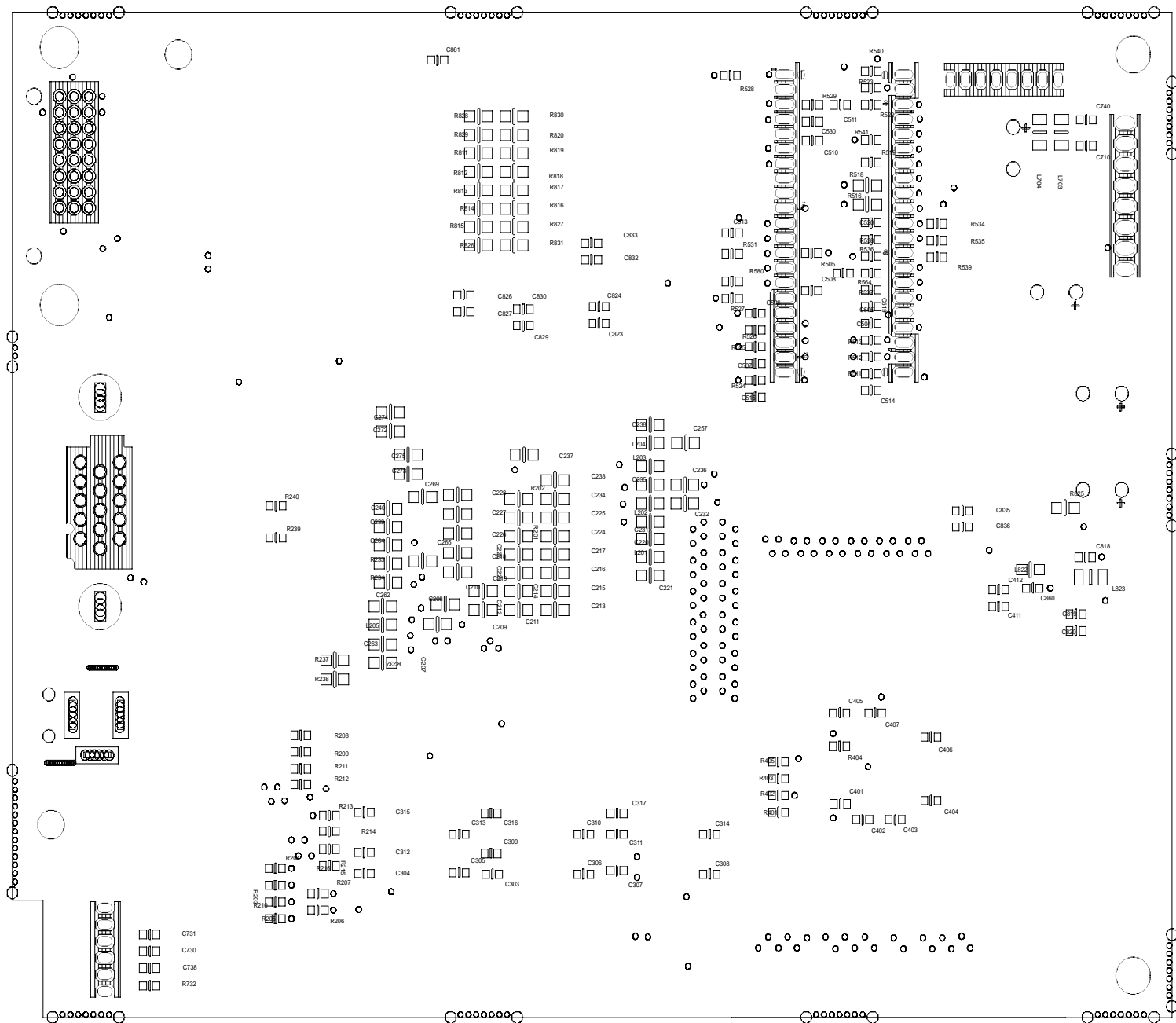


4. TROUBLE IN DPM

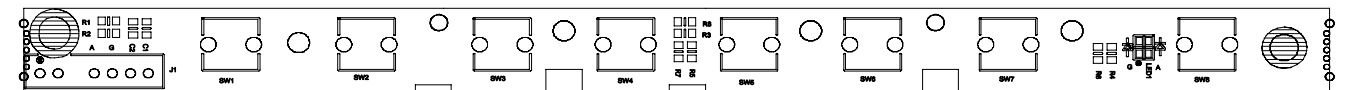


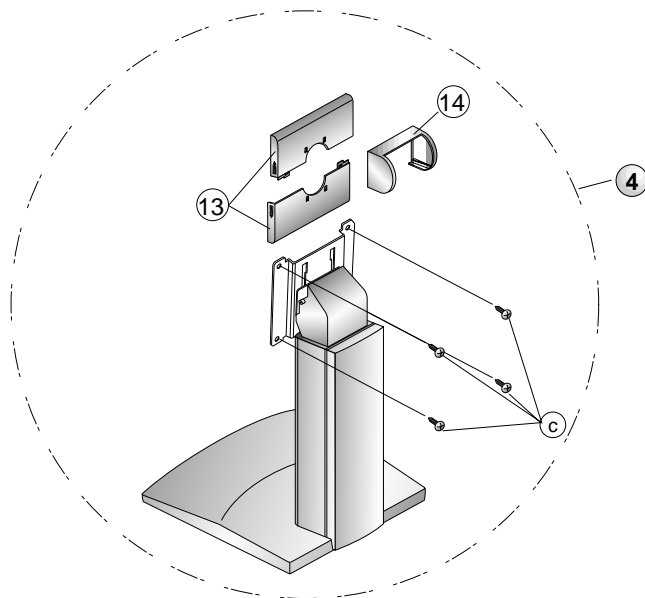
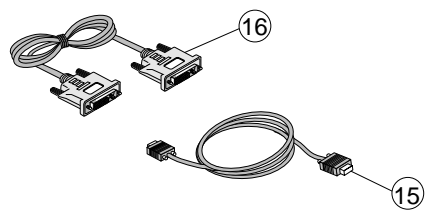
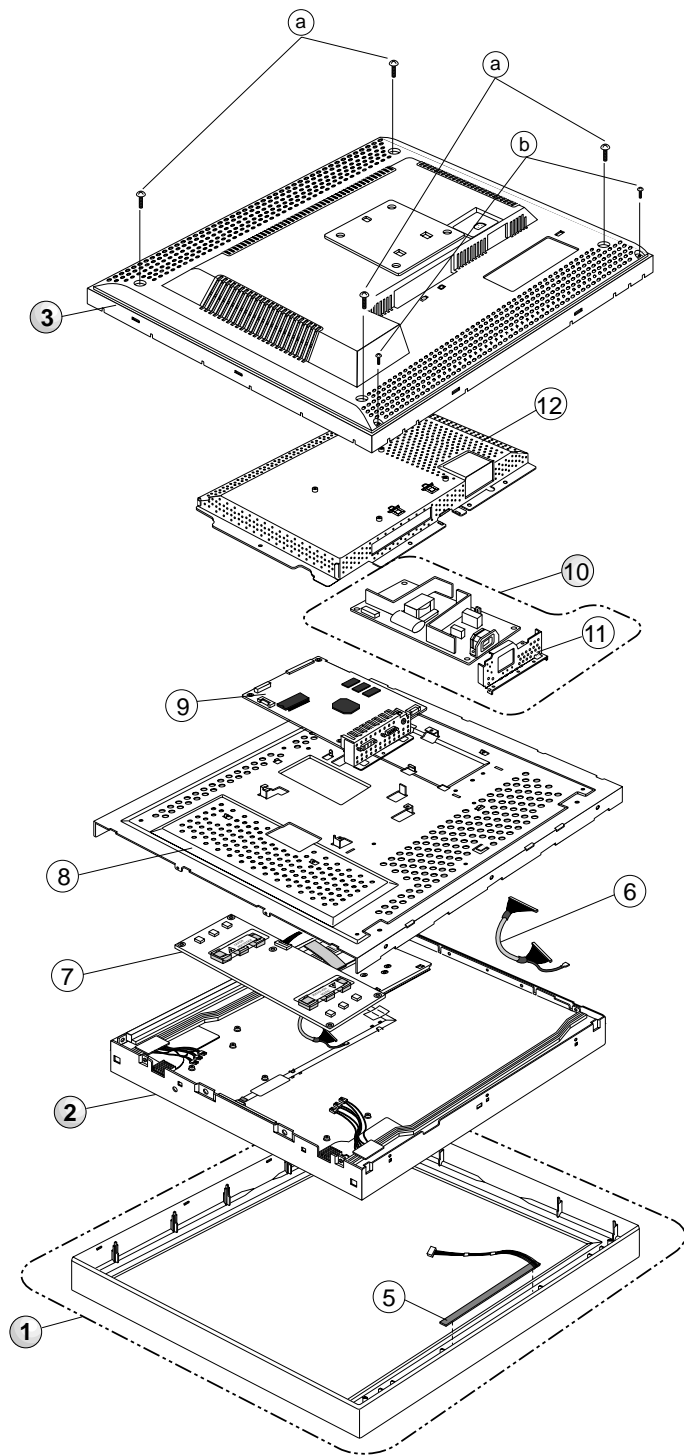
1. MAIN BOARD (Component Side)







3. POWER BOARD (Component Side)






EXPLODED VIEW PARTS LIST

* Note: Safety mark 

Ref. No.	Part No.		Description
1	3091TKL044E		CABINET ASSEMBLY, LN801H NMV 3090TKL045 BK-EP94(JAPAN) -RDT181V(BK)
	3091TKL044F		CABINET ASSEMBLY, LN801H NMV 3090TKL045A -EP94(BLACK)NEC-NORTH AMERICA- LCD1855NX-BK
	3091TKL044C		CABINET ASSEMBLY, LN801H NMV 3090TKL045A EP94(BLACK)Mitsubishi-NORTH AMERICA- NX85LCD
2	6304FLP034A		LCD(LIQUID CRYSTAL DISPLAY), LM181E06-A4M1 LG PHILPS TFT COLOR SXGA 18.1" LVDS SMM
3	3809TKL025E		BACK COVER ASSEMBLY, LN801H 3808TKL030 EP94(BLACK)
4	3043TKK099A		TILT SWIVEL ASSEMBLY, LN801H . NMV BLACK
5	6871TST287A		PWB(PCB) ASSEMBLY, SUB, LB800H CONTROL TOTAL BRAND
6	6631T11012P		CONNECTOR ASSEMBLY, 30P H-H 100MM UL20276 PANEL LINK LB886F
7	6633TZA011D		INVERTER ASSEMBLY, LG-PHILIPS NMC1805A-2 6-LAMPS,18" NMV
8	4951TKS078H		METAL ASSEMBLY, FRAME MAIN - LN801H E06
9	6871TMT326A		PWB(PCB) ASSEMBLY, MAIN, LN801H ALRDG BRAND CL-29 TOTAL
10	6871TPT228A		PWB(PCB) ASSEMBLY, POWER, LN801H POWER TOTAL BRAND NMV
11	4814TKK187A		SHIELD, REAR LB886F
12	4950TKK429A		METAL, REAR LB800H
13	3550TKK282A		COVER, LN801H PIECE VESA BLACK
14	3550TKK283A		COVER, LN801H HINGE BLACK
15	6850TD9001M		CABLE, D-SUB, UL 2990-9C(7.5) DT 1870MM BLACK(9930) NMV 18" DM
16	6866TDV004M		CABLE, DVI, UL20276 DT 2000MM BLACK(9930) NMV 18" DM -ONLY JAPAN
a	1SZZTER001H		SCREW, DRAWING, D3.0 L10.0 MSWR/BK .
b	332-113S		SCREW, DRAWING, D3.0 L12.0 MSWR/BK .
c	332-105G		SCREW, DRAWING, PVS+4*10(MSWR/BK)

REPLACEMENT PARTS LIST

CAUTION: BEFORE REPLACING ANY OF THESE COMPONENTS,
READ CAREFULLY THE **SAFETY PRECAUTIONS** IN THIS MANUAL.

* NOTE : **S** SAFETY Mark 
AL ALTERNATIVE PARTS

DATE: 2002. 07. 02.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
MAIN BOARD				
CAPACITORS				
		C1	0CH8106F691	10UF 16V M 105STD (CYL) R/TP
		C106	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C107	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C151	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C160	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C161	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C201	0CH3103K516	10000PF 50V K B 2012 R/TP
		C202	0CH3103K516	10000PF 50V K B 2012 R/TP
		C203	0CH3103K516	10000PF 50V K B 2012 R/TP
		C204	0CH3103K516	10000PF 50V K B 2012 R/TP
		C205	0CH3103K516	10000PF 50V K B 2012 R/TP
		C206	0CH3103K516	10000PF 50V K B 2012 R/TP
		C207	0CH3103K516	10000PF 50V K B 2012 R/TP
		C208	0CH3103K516	10000PF 50V K B 2012 R/TP
		C209	0CH3103K516	10000PF 50V K B 2012 R/TP
		C210	0CH3103K516	10000PF 50V K B 2012 R/TP
		C211	0CH3103K516	10000PF 50V K B 2012 R/TP
		C212	0CH3103K516	10000PF 50V K B 2012 R/TP
		C213	0CH3103K516	10000PF 50V K B 2012 R/TP
		C214	0CH3103K516	10000PF 50V K B 2012 R/TP
		C215	0CH3103K516	10000PF 50V K B 2012 R/TP
		C216	0CH3103K516	10000PF 50V K B 2012 R/TP
		C217	0CH3103K516	10000PF 50V K B 2012 R/TP
		C218	0CH3104K566	0.1UF 50V K X 2012 R/TP
		C219	0CH3103K516	10000PF 50V K B 2012 R/TP
		C220	0CH6330K416	33PF 50V J NP0 2012 R/TP
		C221	0CH6330K416	33PF 50V J NP0 2012 R/TP
		C222	0CH3103K516	10000PF 50V K B 2012 R/TP
		C223	0CH3103K516	10000PF 50V K B 2012 R/TP
		C224	0CH3103K516	10000PF 50V K B 2012 R/TP
		C225	0CH3103K516	10000PF 50V K B 2012 R/TP
		C226	0CH3103K516	10000PF 50V K B 2012 R/TP
		C227	0CH3104K566	0.1UF 50V K X 2012 R/TP
		C228	0CH3103K516	10000PF 50V K B 2012 R/TP
		C229	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C230	0CH6150K416	15PF 50V J NP0 2012 R/TP
		C231	0CH6680K416	68PF 50V J NP0 2012 R/TP
		C232	0CH6680K416	68PF 50V J NP0 2012 R/TP
		C233	0CH3103K516	10000PF 50V K B 2012 R/TP
		C234	0CH3103K516	10000PF 50V K B 2012 R/TP
		C235	0CH6680K416	68PF 50V J NP0 2012 R/TP
		C236	0CH6680K416	68PF 50V J NP0 2012 R/TP
		C237	0CH3104K566	0.1UF 50V K X 2012 R/TP
		C258	0CH6150K416	15PF 50V J NP0 2012 R/TP
		C259	0CH3104K566	0.1UF 50V K X 2012 R/TP
		C260	0CH3104K566	0.1UF 50V K X 2012 R/TP
		C261	0CH3104K566	0.1UF 50V K X 2012 R/TP
		C262	0CH6330K416	33PF 50V J NP0 2012 R/TP
		C264	0CH6221K416	220PF 50V J NP0 2012 R/TP
		C265	0CH6470K416	47PF 50V J NP0 2012 R/TP
		C269	0CH3103K516	10000PF 50V K B 2012 R/TP
		C270	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R

DATE: 2002. 07. 02.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C271	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C272	0CH3104K566	0.1UF 50V K X 2012 R/TP
		C273	0CH3103K516	10000PF 50V K B 2012 R/TP
		C274	0CH3103K516	10000PF 50V K B 2012 R/TP
		C275	0CH3104K566	0.1UF 50V K X 2012 R/TP
		C276	0CH3103K516	10000PF 50V K B 2012 R/TP
		C278	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C279	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C280	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C301	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C302	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C303	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C304	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C305	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C306	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C307	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C308	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C309	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C310	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C311	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C312	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C313	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C314	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C315	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C316	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C317	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C318	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C401	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C402	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C403	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C404	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C405	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C406	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C407	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C408	0CH8226F691	22UF 16V M 105STD (CYL) R/TP
		C409	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD) SMD
		C410	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD) SMD
		C411	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C412	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C413	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD) SMD
		C501	0CC180CK41A	18PF 1608 50V 5% R/TP NP0
		C502	0CC180CK41A	18PF 1608 50V 5% R/TP NP0
		C503	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C504	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C505	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C506	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C507	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C508	0CK222CK51A	2200PF 1608 50V 10% R/TP B(Y5P)
		C510	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C511	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C513	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C514	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C515	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C516	0CC101CK41A	100PF 1608 50V 5% R/TP NP0

DATE: 2002. 07. 02.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C517	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C519	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C520	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C521	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C522	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C531	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C532	0CH8106J691	10UF 35V M 105STD (CYL) R/TP
		C533	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C548	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C701	0CE477EH618	470UF KMG 25V M FL TP 5
		C706	0CC221CK41A	220PF 1608 50V 5% R/TP NP0
		C707	0CH8106J691	10UF 35V M 105STD (CYL) R/TP
		C710	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C714	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C715	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C727	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C728	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C729	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C730	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C731	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C738	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C740	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C817	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD) SMD
		C818	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C819	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C820	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C822	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD) SMD
		C823	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C824	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C825	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD) SMD
		C826	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C827	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C828	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD) SMD
		C829	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C830	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C831	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD) SMD
		C832	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C833	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C834	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD) SMD
		C835	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C836	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C840	0CE477EH618	470UF KMG 25V M FL TP 5
		C841	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C842	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C843	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C844	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD) SMD
		C845	0CE477EH618	470UF KMG 25V M FL TP 5
		C850	0CE477EH618	470UF KMG 25V M FL TP 5
		C860	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C861	0CK105CD56A	1UF 1608 10V 10% R/TP X7R
		C870	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C871	0CH6101K416	100PF 50V J NP0 2012 R/TP
		C872	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C873	0CH6101K416	100PF 50V J NP0 2012 R/TP
DIODES				
		D501	0DS301109AA	MMBD301LT1 TP MOTOROLA SOT23 30
		D502	0DS301109AA	MMBD301LT1 TP MOTOROLA SOT23 30
		D503	0DS301109AA	MMBD301LT1 TP MOTOROLA SOT23 30
		D504	0DS301109AA	MMBD301LT1 TP MOTOROLA SOT23 30
		D701	0DS226009AA	KDS226 TP KEC SOT-23 80V 300MA

DATE: 2002. 07. 02.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		D702	0DS226009AA	KDS226 TP KEC SOT-23 80V 300MA
		D703	0DS226009AA	KDS226 TP KEC SOT-23 80V 300MA
		D704	0DS226009AA	KDS226 TP KEC SOT-23 80V 300MA
		D730	0DS226009AA	KDS226 TP KEC SOT-23 80V 300MA
		D731	0DS226009AA	KDS226 TP KEC SOT-23 80V 300MA
		D732	0DS226009AA	KDS226 TP KEC SOT-23 80V 300MA
		D733	0DS226009AA	KDS226 TP KEC SOT-23 80V 300MA
		D734	0DS226009AA	KDS226 TP KEC SOT-23 80V 300MA
		D735	0DS226009AA	KDS226 TP KEC SOT-23 80V 300MA
		D736	0DS226009AA	KDS226 TP KEC SOT-23 80V 300MA
		D737	0DS226009AA	KDS226 TP KEC SOT-23 80V 300MA
		D738	0DS226009AA	KDS226 TP KEC SOT-23 80V 300MA
		D739	0DS226009AA	KDS226 TP KEC SOT-23 80V 300MA
		D740	0DS226009AA	KDS226 TP KEC SOT-23 80V 300MA
		D741	0DS226009AA	KDS226 TP KEC SOT-23 80V 300MA
		D742	0DS226009AA	KDS226 TP KEC SOT-23 80V 300MA
		D743	0DS226009AA	KDS226 TP KEC SOT-23 80V 300MA
		D744	0DS226009AA	KDS226 TP KEC SOT-23 80V 300MA
		D745	0DS226009AA	KDS226 TP KEC SOT-23 80V 300MA
		D746	0DS226009AA	KDS226 TP KEC SOT-23 80V 300MA
		D747	0DS226009AA	KDS226 TP KEC SOT-23 80V 300MA
		ZD701	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 200
		ZD702	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 200
		ZD703	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 200
		ZD704	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 200
		ZD705	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 200
		ZD711	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 200
		ZD721	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 200
		ZD722	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 200
ICs				
		U105	0IT1741400T	SN74AC14DR 14,SOP R/TP HEX INVE
		U110	0ISS780500H	KA78M05-R 3P,D-PAK TP 5V 0.5A R
		U201	0IPRPGN001A	GM5020 GENESIS 292P,PBGA TRAY S
		U301	0IEB121616A	M12L16161A-7T 50P TSOP ST 16M(5
		U302	0IEB121616A	M12L16161A-7T 50P TSOP ST 16M(5
		U303	0IEB121616A	M12L16161A-7T 50P TSOP ST 16M(5
		U401	0ILNRTH001A	THC63LVD823 THINE MICROSYSTEMS
		U501	0IZZTSZ196A	MOTOROLA 42P BK MICOM LN801H NM
		U502	0IKE704200J	KIA7042AF SOT-89 TP 4.2V VOLTAGE
		U503	0ICS240813B	CAT24WC08J-TE13 8P,SOIC R/TP 8K
		U504	0ISS524202B	S524A40X21(SCT0) SAMSUNG ELECTR
		U509	0ISS524202B	S524A40X21(SCT0) SAMSUNG ELECTR
		U802	0TFFC80009A	FAIRCHILD FDC6326L R/TP SOT-6 2
		U803	0IPMGFA003B	RC1117S-2.5 FAIRCHILD SOT-223 R
		U804	0TFFC80009A	FAIRCHILD FDC6326L R/TP SOT-6 2
		U820	0IRH033200A	BA033FP-E2 MOLD-3 TP REGULATOR
		U821	0IRH033200A	BA033FP-E2 MOLD-3 TP REGULATOR
COILS & CORES				
		L201	0RH0562D622	56 1/10W 5 D.R/TP
		L202	6210TCE001P	HB-1S2012-121JT CERATECH 2012MM
		L203	6210TCE001P	HB-1S2012-121JT CERATECH 2012MM
		L204	6210TCE001P	HB-1S2012-121JT CERATECH 2012MM
		L205	6210TCE001R	HB-1S2012-400JT CERATECH 2012MM
		L206	6210TCE001P	HB-1S2012-121JT CERATECH 2012MM
		L207	6210TCE001P	HB-1S2012-121JT CERATECH 2012MM
		L401	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R/
		L402	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R/
		L403	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R/

DATE: 2002. 07. 02.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		L703	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R/
		L704	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R/
		L804	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R/
		L805	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R/
		L810	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R/
		L811	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R/
		L820	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R/
		L821	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R/
		L822	6210TCE001P	HB-1S2012-121JT CERATECH 2012MM
		L823	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R/
TRANSISTOR				
		Q102	0TR390409AE	FAIRCHILD KST3904(LGEMTF) TP SO
		Q103	0TR390409AE	FAIRCHILD KST3904(LGEMTF) TP SO
		Q703	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NPN E
		Q704	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NPN E
RESISTORS				
		R122	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R129	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R130	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R131	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R132	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R133	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R201	0RH2001D622	2.0K 1/10W 5 D.R/TP
		R202	0RH2001D622	2.0K 1/10W 5 D.R/TP
		R203	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R204	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R205	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R206	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R207	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R208	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R209	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R210	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R211	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R212	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R213	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R214	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R215	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R216	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R218	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R219	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R220	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R221	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R222	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R223	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R224	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R225	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R233	0RH0222D622	22 1/10W 5 D.R/TP
		R234	0RH0222D622	22 1/10W 5 D.R/TP
		R235	0RJ2201D677	2200 OHM 1/10 W 5% 1608 R/TP
		R236	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R237	0RH0000D622	0 1/10W P-TYPE TAPPING
		R238	0RH0000D622	0 1/10W P-TYPE TAPPING
		R239	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R240	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R401	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R402	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R404	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R405	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP

DATE: 2002. 07. 02.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R406	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R501	0RJ1004D677	1000000 OHM 1/10 W 5% 1608 R/TP
		R502	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R505	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R508	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R511	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R512	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R513	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R514	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R515	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R516	0RH1001D622	1K OHM 1 / 10 W 2012 5.00% D
		R517	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R518	0RH1001D622	1K OHM 1 / 10 W 2012 5.00% D
		R519	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R522	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R523	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R524	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R525	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R526	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R527	0RJ1003D677	100K OHM 1/10 W 5% 1608 R/TP
		R528	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R529	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R531	0RJ3302D677	33K OHM 1/10 W 5% 1608 R/TP
		R534	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R535	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R536	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R537	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R538	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R539	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R540	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R541	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R542	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R543	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R544	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R545	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R564	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R580	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R581	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R582	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R585	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R586	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R587	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R588	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R593	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R594	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R595	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R596	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R597	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R701	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R703	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R704	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R705	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R711	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R712	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R713	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R714	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R715	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R716	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R718	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R719	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R726	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R727	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP

DATE: 2002. 07. 02.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R729	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R730	0RJ5600D677	560 OHM 1/10 W 5% 1608 R/TP
		R731	0RJ3300D677	330 OHM 1/10 W 5% 1608 R/TP
		R740	0RH0000D622	0 1/10W P-TYPE TAPPING
		R741	0RH0000D622	0 1/10W P-TYPE TAPPING
		R742	0RH0000D622	0 1/10W P-TYPE TAPPING
		R743	0RH0000D622	0 1/10W P-TYPE TAPPING
		R744	0RH0000D622	0 1/10W P-TYPE TAPPING
		R745	0RH0000D622	0 1/10W P-TYPE TAPPING
		R746	0RH0000D622	0 1/10W P-TYPE TAPPING
		R752	0RJ1003D677	100K OHM 1/10 W 5% 1608 R/TP
		R753	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R807	0RH0000D622	0 1/10W P-TYPE TAPPING
		R809	0RJ2202D677	22K OHM 1/10 W 5% 1608 R/TP
		R810	0RH5600D622	560 1/10W 5 D.R/TP
		R811	0RH0332D622	33 1/10W 5 D.R/TP
		R812	0RH0332D622	33 1/10W 5 D.R/TP
		R813	0RH0332D622	33 1/10W 5 D.R/TP
		R814	0RH0332D622	33 1/10W 5 D.R/TP
		R815	0RH0332D622	33 1/10W 5 D.R/TP
		R816	0RH0332D622	33 1/10W 5 D.R/TP
		R817	0RH0332D622	33 1/10W 5 D.R/TP
		R818	0RH0332D622	33 1/10W 5 D.R/TP
		R819	0RH0332D622	33 1/10W 5 D.R/TP
		R820	0RH0332D622	33 1/10W 5 D.R/TP
		R821	0RJ2202D677	22K OHM 1/10 W 5% 1608 R/TP
		R822	0RH5600D622	560 1/10W 5 D.R/TP
		R824	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R826	0RH0332D622	33 1/10W 5 D.R/TP
		R827	0RH0332D622	33 1/10W 5 D.R/TP
		R828	0RH0332D622	33 1/10W 5 D.R/TP
		R829	0RH0332D622	33 1/10W 5 D.R/TP
		R830	0RH0332D622	33 1/10W 5 D.R/TP
		RA202	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA204	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA206	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA208	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA210	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA212	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA214	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA216	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA218	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA220	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA222	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA224	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA225	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA226	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA227	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA228	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA229	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA230	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA231	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA232	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA233	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA234	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA235	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA236	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA237	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA238	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA239	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA240	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
		RA241	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI

DATE: 2002. 07. 02.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		RA242	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CHI
OTHERs				
		X201	6202TST001E	SX-1 SUNNY CHIP 24MHZ 30PPM 20P
		X501	6202TST001E	SX-1 SUNNY CHIP 24MHZ 30PPM 20P
POWER BOARD				
△		C901	0CBZTBU002B	BULK PCX2 335 474K
△		C902	0CKZTBU004A	SD E 222M 12.5BW1 250V BK10.0 S
△		C903	0CKZTBU004A	SD E 222M 12.5BW1 250V BK10.0 S
△		C904	0CBZTBU002A	BULK PCX2 335 224K
		C905	0CZZTAB002C	KMF 18*40 SYE / SWE 400V 120UF
		C906	0CK10302945	0.01UF 2KV Z F TR
		C907	0CE476EK638	47UF KMG 50V M FM5 TP 5
		C908	0CQ2721N419	2700PF 100V J PE NI TP
		C909	0CK1020K515	1000PF 50V K B TR
		C911	0CE228EF630	2200UF KMG 16V M FM5 BULK
		C913	0CE108BF630	1000UF KME 16V M FM5 BULK
		C914	0CE228ED630	2200UF KMG,RD 10V 20% BULK FM5
		C915	0CE228ED630	2200UF KMG,RD 10V 20% BULK FM5
		C916	181-288L	MKT 100V 823JTR PHS26823
		C918	0CE228ED630	2200UF KMG,RD 10V 20% BULK FM5
		C919	0CKZTBU004B	SD E 332M 14.0BW1 250V BK10.0 S
		C921	0CE228EF630	2200UF KMG 16V M FM5 BULK
		C922	0CKZTTA002E	EKR3A102K09FK5 SAMWHA 1KV 1000P
		C923	0CKZTTA002E	EKR3A102K09FK5 SAMWHA 1KV 1000P
		C924	0CE336BH638	33UF KME 25V M FM5 TP5
		D901	0DD400709CB	UF4007 TP G.I DO204AL 1000V 1A
		D902	0DR400409AB	UF4004 TP G.I DO204AL 400V 1A 3
		D903	0DRIR00011B	16CTQ100 I.R ST TO220 100V 16A
		D906	0DRIR00021A	30CTQ060 I.R ST TO220 60V 30A 1
		D907	0DS113309AA	1SS133 TP ROHM KOREA DO34 90V 0
		BD901	0DD360000DA	D3SBA60 BK SHINDENGEN 600V 2
		ZD901	0DZ470009BC	GDZ4.7B TP GRANDE DO34 0.5W 4.7
△		F901	131-040C	3150MA 250V 5.2X20 CY/GL UL / C
		FH1	430-858C	AFC-520 BAE EUN TA
		FH2	430-858C	AFC-520 BAE EUN TA
		IC901	0IPMGIH001A	ICE2AS01 INFINEON 8P,DIP ST OFF
		IC904	0ISS431000A	KA431AZ (LM431AZ)
		IC905	0ISS780500F	KA7805
		L901	150-A85F	LX31 GET BAR CHOKE,3.3UH,LB886F
		L902	150-A85F	LX31 GET BAR CHOKE,3.3UH,LB886F
△		LF901	6200TZ001A	- GO BK L/FILTER,9MH,LB886F
△		LF902	6200TZ001A	- GO BK L/FILTER,9MH,LB886F
△		P901	6620TKB002A	BAE EUN AC UNIVERSAL 3PIN BLACK
△		PC1	0IL1817000E	LTV-817M B 4P BK PHOTO COUPLER
△		T901	6170TMZ125B	EER3016 340UH V-10PIN LB886F SI
		TH902	6322TA080AA	TP8D13 DAEWOO +/- 15% 110/220V
		Q902	0TFFN10004A	INFINEON SPP11N60C2 ST TO220 60
		R901	0RC6803A609	680K OHM 1/2 W(7.0) 5% TA52
		R902	0RD3902A609	39K OHM 1/2 W (7.0) 5% TA52
		R903	0RD3902A609	39K OHM 1/2 W (7.0) 5% TA52
		R906A	0RX5102J609	51KOHM 1 W 5% TA52
		R906B	0RX5102J609	51KOHM 1 W 5% TA52
		R907	0RD0102Q609	10 1/4W(3 5% TA52
		R908	0RD0222Q609	22 1/4W(3 5% TA52
		R909	0RD1001Q609	1K 1/4W(3 5% TA52
		R910	0RD0431A609	4.3 OHM 1/2 W (7.0) 5% TA52
		R911	0RC1004A609	1M OHM 1/2 W(7.0) 5% TA52
		R912	0RC1004A609	1M OHM 1/2 W(7.0) 5% TA52

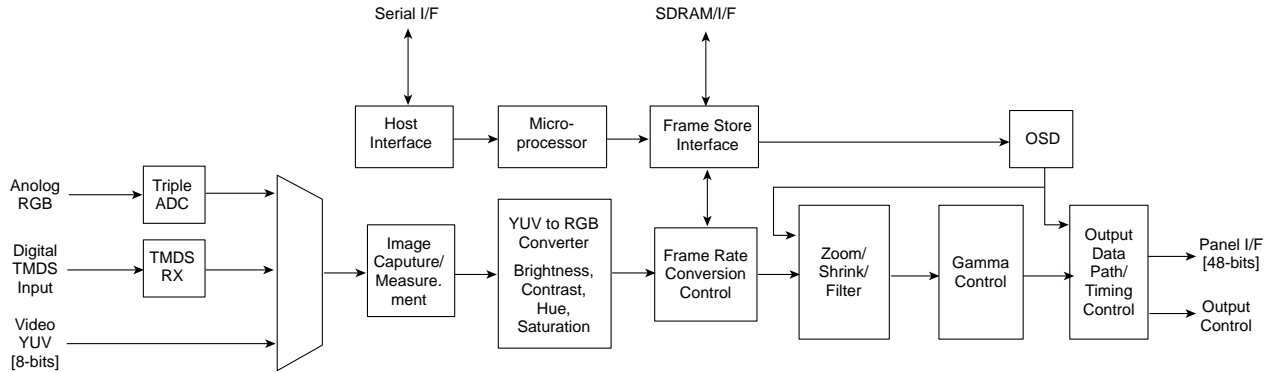
DATE: 2002. 07. 02.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R913	0RN1102F409	11K 1/6W 1% TA52
		R914	0RD1002Q609	10K 1/4W(3 5% TA52
		R917	0RD1201Q609	1.20K 1/4W(3 5% TA52
		R918	0RD1000Q609	100 1/4W(3 5% TA52
		R920	0RN4702F409	47K 1/6W 1% TA52
		R921	0RN2701F409	2.70K 1/6W 1% TA52
		R923	0RB0330K607	0.33 OHM 2 W 5% TA62
		R924	0RD0752Q609	75 1/4W(3 5% TA52
		R925	0RD1002Q609	10K 1/4W(3 5% TA52
		R926	0RN0471H609	4.7 OHM 1/2 W 5% TA52
		R927	0RD0102A609	10 OHM 1/2 W (7.0) 5% TA52
		R928	0RD0202Q609	20 1/4W(3 5% TA52
CONTROL BOARD				
		C1	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C2	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		LED1	0DLLT0148AA	LITEON LTST-C195KGJSKT R/TP GRE
		R1	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R2	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R3	0RJ8200D677	820 OHM 1/10 W 5% 1608 R/TP
		R4	0RJ8200D677	820 OHM 1/10 W 5% 1608 R/TP
		R5	0RJ1501D677	1.5K OHM 1/10 W 5% 1608 R/TP
		R6	0RJ1501D677	1.5K OHM 1/10 W 5% 1608 R/TP
		R7	0RJ2201D677	2200 OHM 1/10 W 5% 1608 R/TP
		R8	0RJ2201D677	2200 OHM 1/10 W 5% 1608 R/TP
		SW1	140-058E	SKHV10910B LGEC NON 12V 20A HOR
		SW2	140-058E	SKHV10910B LGEC NON 12V 20A HOR
		SW3	140-058E	SKHV10910B LGEC NON 12V 20A HOR
		SW4	140-058E	SKHV10910B LGEC NON 12V 20A HOR
		SW5	140-058E	SKHV10910B LGEC NON 12V 20A HOR
		SW6	140-058E	SKHV10910B LGEC NON 12V 20A HOR
		SW7	140-058E	SKHV10910B LGEC NON 12V 20A HOR
		SW8	140-058E	SKHV10910B LGEC NON 12V 20A HOR

PIN CONFIGURATION

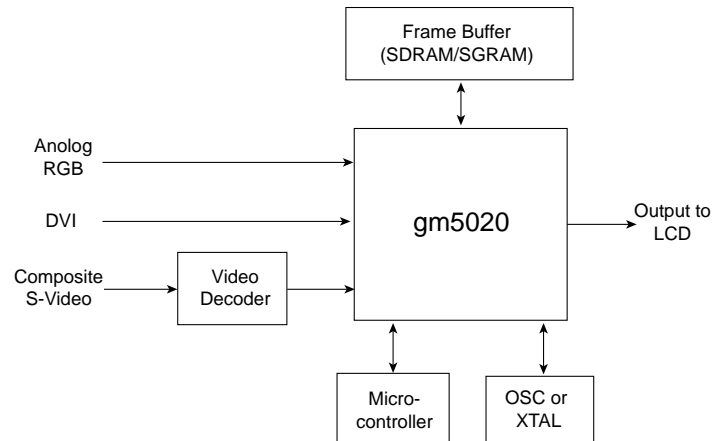
GM5020

GENESIS 292P

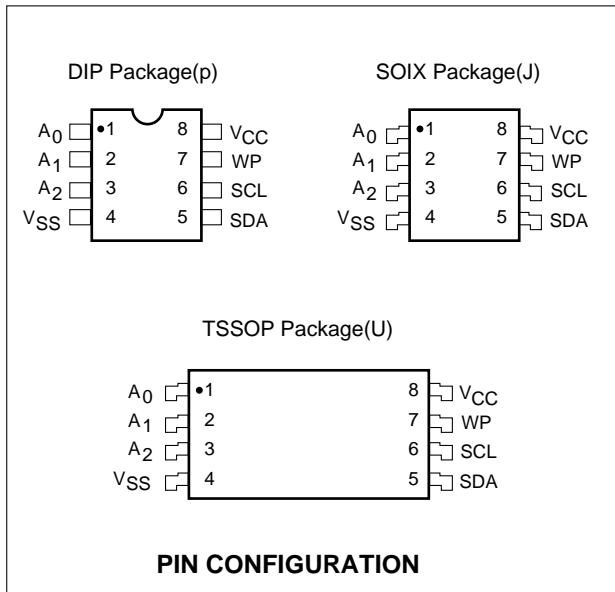
FUNCTIONAL BLOCK DIAGRAM



SYSTEM BLOCK DIAGRAM



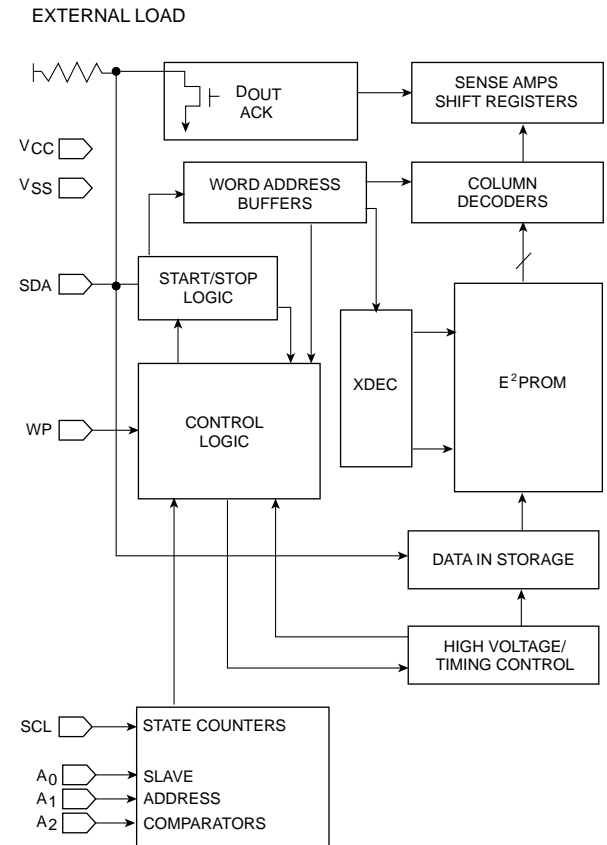
CAT24WC08J-TE13 8P



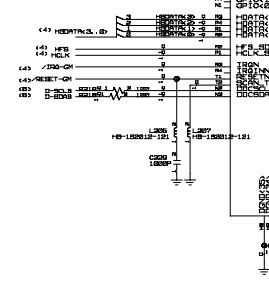
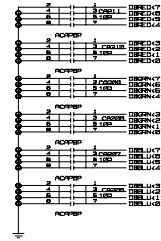
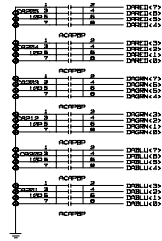
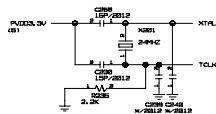
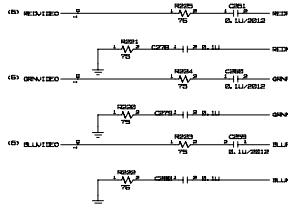
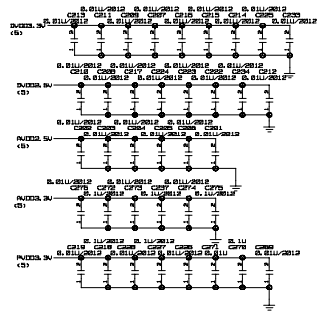
PIN FUNCTION

Pin Name	Function
A0, A1, A2	Device Address Inputs
SDA	Serial Data/Address
SCL	Serial Clock
WP	Write Protect
Vcc	+1.8V to + 6.0V power Supply
Vss	Ground

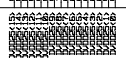
BLOCK DIAGRAM



#1 GM5020



(C1) INVERT, IN
(C2) INVERT, IN



GM5020



ADCTEST

CHOUT

COLK

COLK

COLK

COLK

COLK

COLK

COLK

COLK

COLK

COLK

COLK

COLK

COLK

COLK

COLK

COLK

COLK

COLK

COLK

COLK

COLK

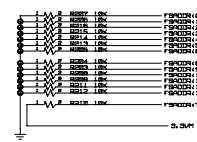
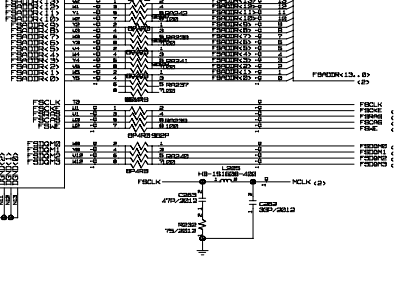
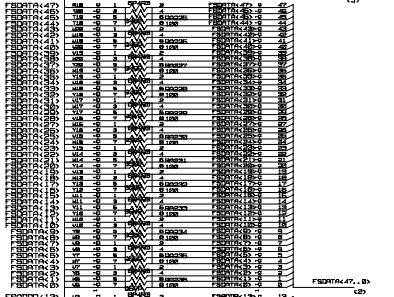
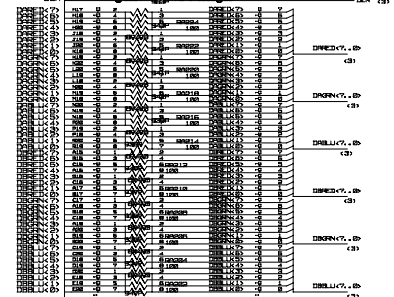
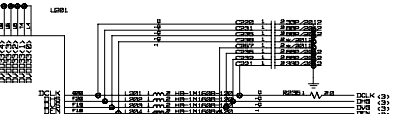
COLK

COLK

COLK

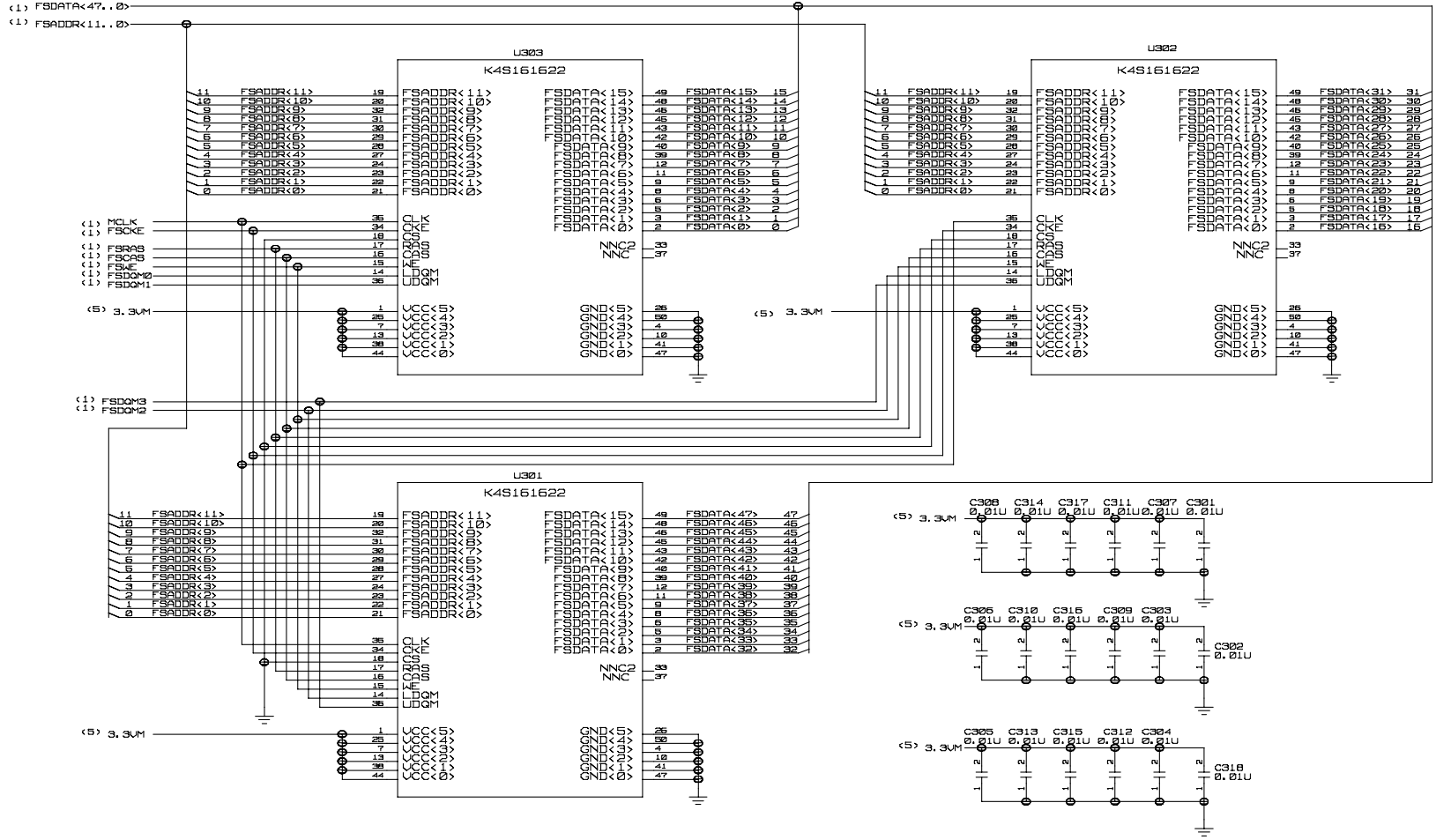
COLK

COLK

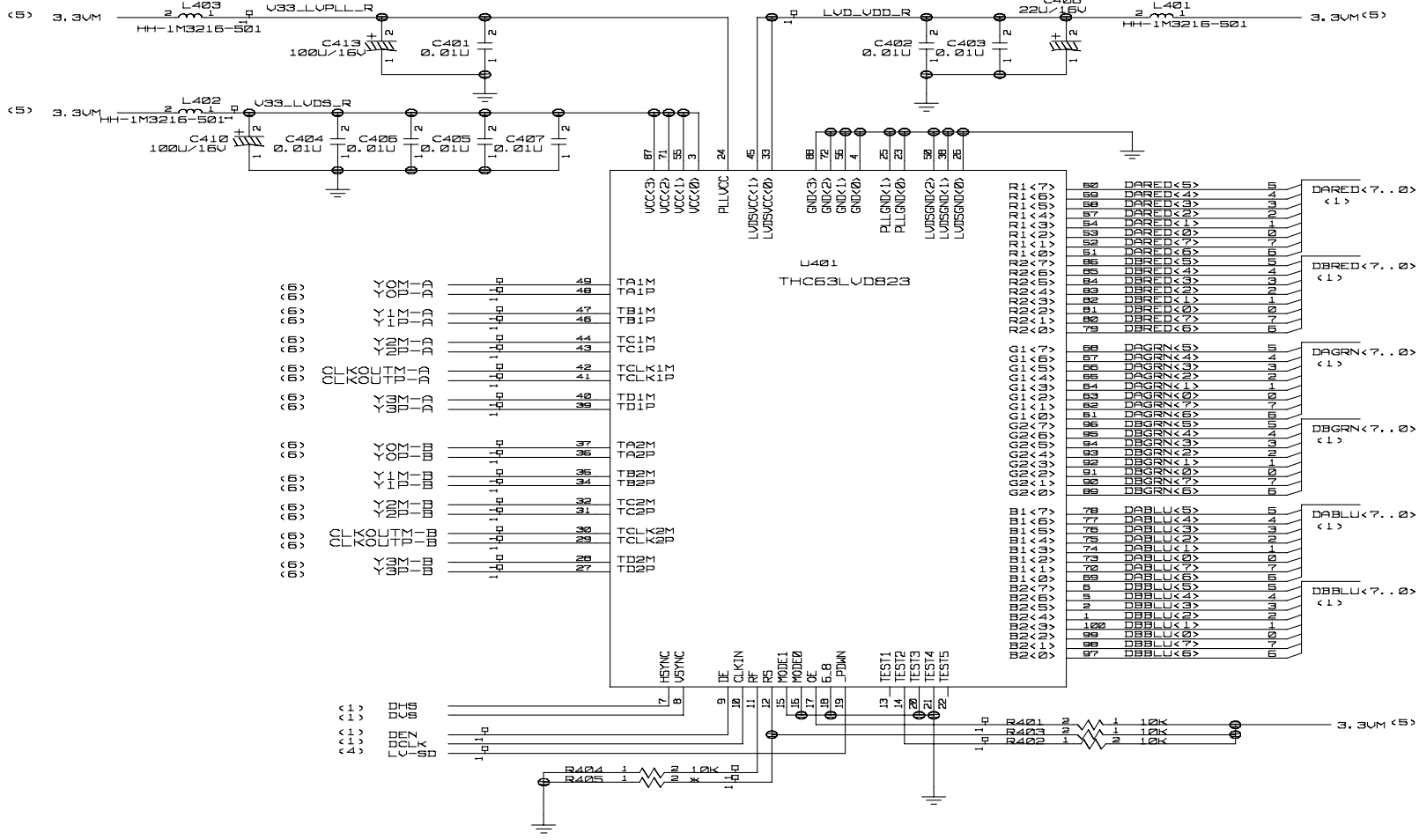


2. MEMORY

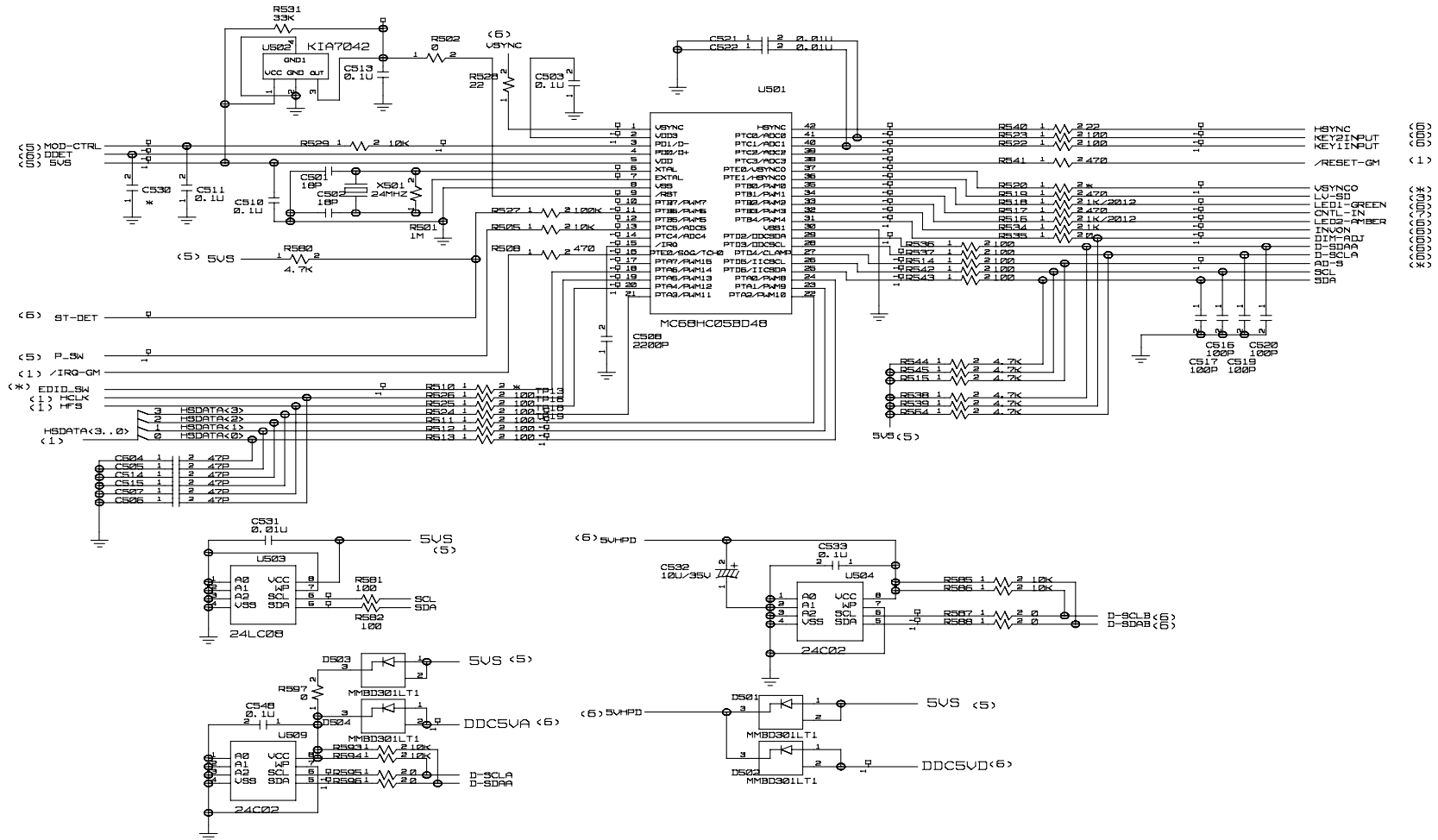
#2 MEMORY



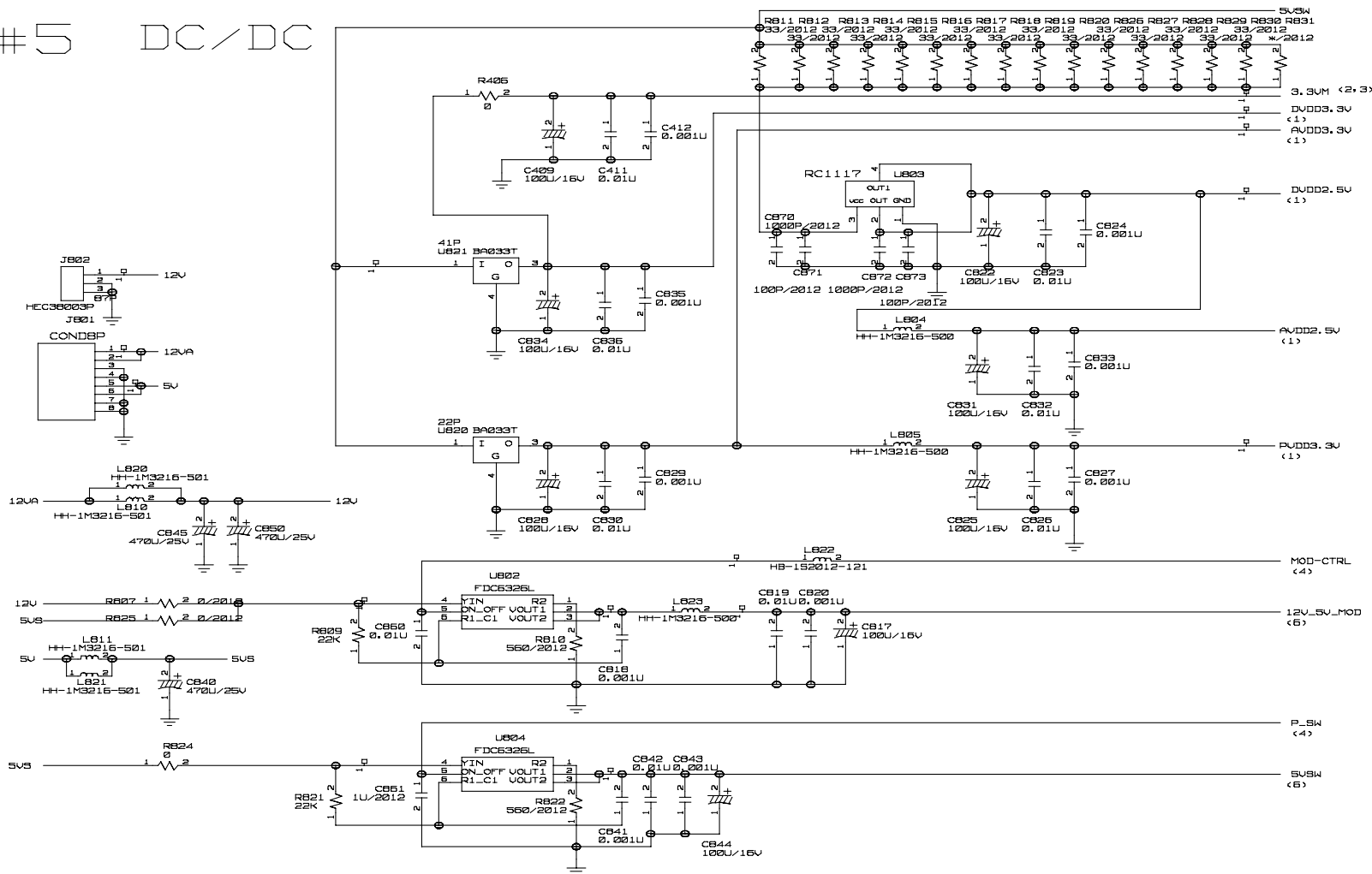
#3 LVDS



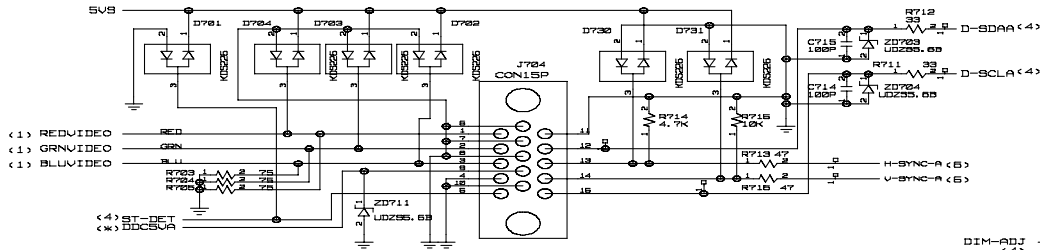
#4 MICOM



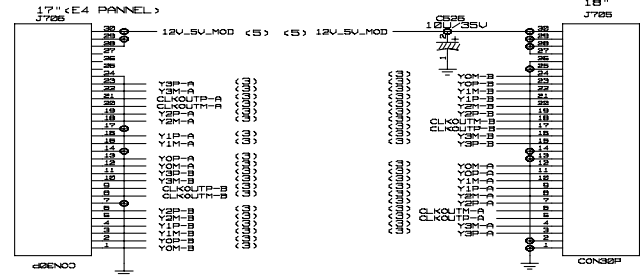
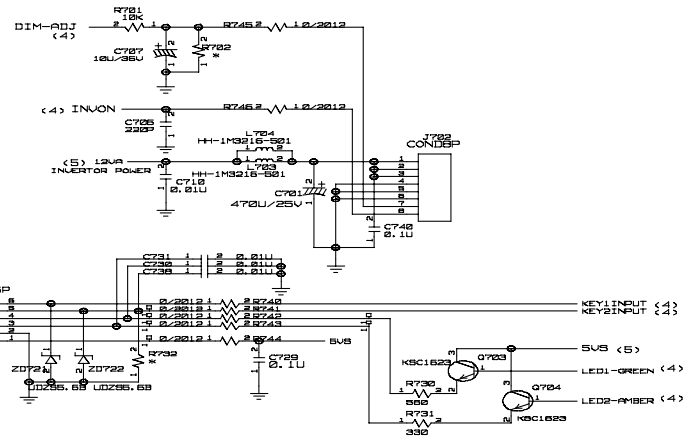
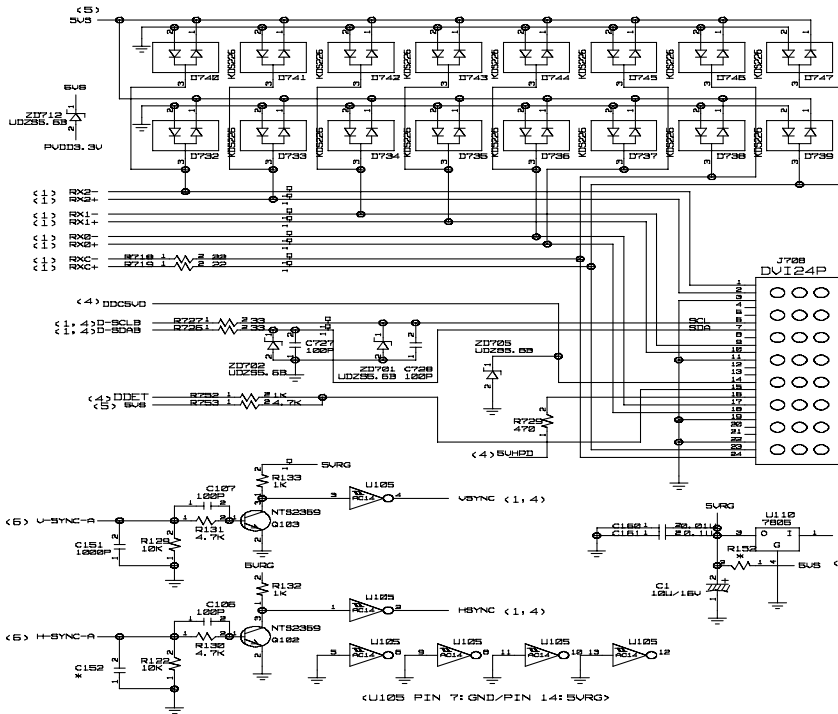
#5 DC/DC



#6 CONNECTOR

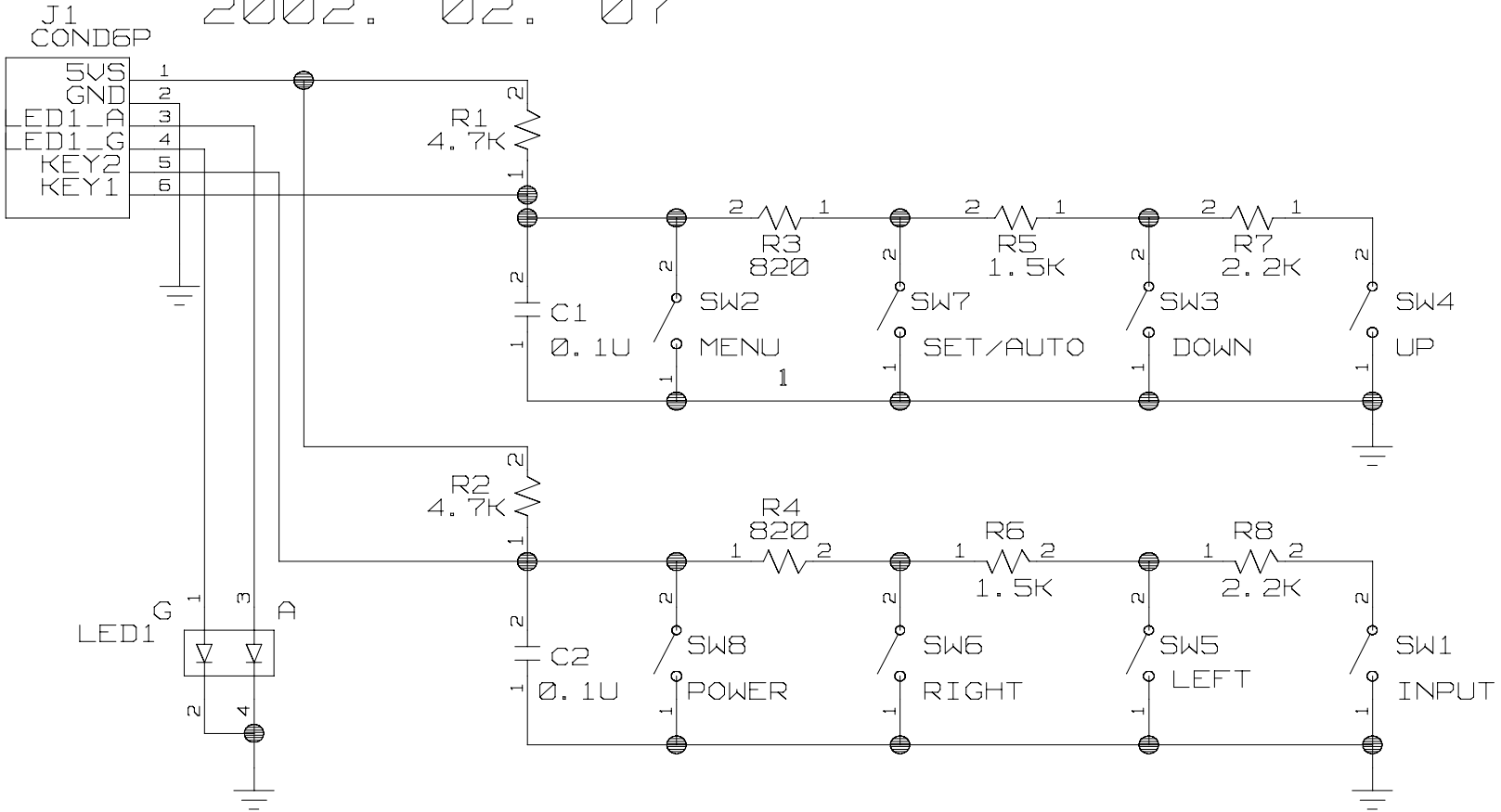


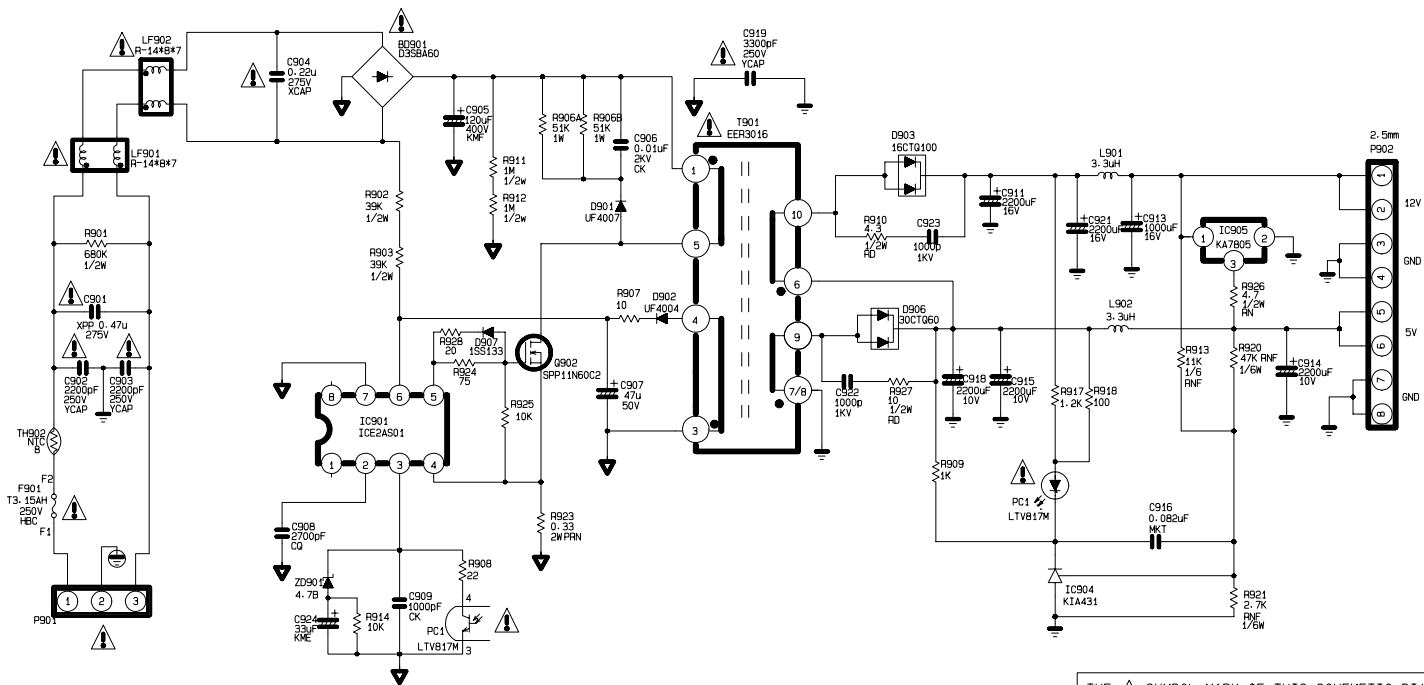
	LB782F	1800FP
R807<0>	X	O
R823<0>	O	X
J705	X	O
J706	O	X





CONTROL/POWER

2002. 02. 07





THE  SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION. FILRE AND ELECTRICAL SHOCK HAZARDS. WHEN SERVICING IF IS ESSENTIAL THAT ONLY MANUFACTURES SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE  SYMBOL MARK OF THE SCHEMATIC.

COMPANY CONFIDENTIAL DO NOT COPY!

DATE	2002.06.21	REV	01
MODEL	LN801H	Sheet	1 / 1 Page

LN801H Internal Power Circuit